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ABSTRACT

The 23 products selected in the Panel Review of Products (PROP) in 1972-1973 and the dissemination recommendations made are discussed, and product descriptions are provided. The product descriptions present information as to what each product is, what it does, and whom it is designed to serve. Emphasis is given to evaluation evidence on effectiveness, to information on demonstrated benefits, to both dollar and non-dollar costs and economies, and to the developer's dissemination efforts. Also included are summaries on considerations related to installation and use. The products are: Oral Language Program; Social Education Program; Development of Materials for a One-Year Course in African Music for the General Undergraduate Student; Instruments and Procedures for Describing Effective Teaching Behavior; Cluster Concept Program; Individually Prescribed Instruction/Mathematics; Sullivan Reading Program; Home-Oriented Childhood Education Program for Rural America; Elementary School Evaluation KIT: Needs Assessment; CSE-ECRC Preschool/Kindergarten Test Evaluations; CSE Elementary School Test Evaluations; Perceptual Skills Curriculum; Sourcebook of Elementary Curricula, Programs and Projects, ALERT; Educational Information Consultant; Determining Instructional Purposes; Early Childhood Information Unit; American Government Information Unit; Intensive Training Curriculum for the Education of Young Educable Mentally Retarded Children; Project Management II: Basic Principles and Techniques of Project Management; Higher-Order Cognitive, Affective, and Interpersonal Skills; Evaluation Workshop I: An Orientation; Pacemaker Games Program; and Geography Curriculum Project. (DB)

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ED 083292

Panel Review of Products

PROP

1972-1973

For the National Institute of Education

DISSEMINATION RECOMMENDATIONS ON AND DESCRIPTIONS OF EXEMPLARY PRODUCTS

April 1973

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EDUCATIONAL TESTING SERVICE
PRINCETON, NEW JERSEY

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PANEL REVIEW OF PRODUCTS

PROP

1972-1973

For the National Institute of Education

Dissemination Recommendations on and Descriptions of Exemplary Products

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Educational Testing Service
Princeton, New Jersey
April 1973

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Foreword

Two published volumes report on the 1972-1973 Panel Review of Products (PROP). One of these documents reports fully upon the procedures used and actions taken by the Panel and the supporting staff that brought about the reported results. This report is issued as PR-73-11 under the title Selection of Exemplary Educational Products, by W. W. Walton, B. F. Esser, M. G. Epstein, E. H. Margosches, and W. B. Schrader. The second collection of information, contained between these covers, reports on the 23 products selected in PROP 1972-1973 and on the dissemination recommendations made in their support by the PROP Panel and presents product descriptions as detailed below.

The bulk of the present volume is taken up by nontechnical descriptions of the products selected for dissemination-related actions in the 1972-1973 review. Attention is given to what each product is, what it does, and whom it is designed to serve. Special emphasis is devoted to evaluation evidence on effectiveness, to information on demonstrated benefits, to both dollar and nondollar costs and economies, and to the developer's dissemination efforts. Also included are summaries on considerations related to installation and use.

Fourteen professional staff members of ETS's Test Development Division, in most cases those that had earlier completed analytical product analyses and precis on the same products, prepared the product descriptions for the present report. Barbara F. Esser and Elizabeth H. Margosches collaborated with me in presenting the Panel's dissemination recommendations and in compiling the arrays of information which follow. A listing of the 23 products covered by this report begins on the next page.

Wesley W. Walton
Educational Testing Service
Princeton, New Jersey

April 1973

Spring 1973
23 Products

Panel Review of Products
Products Selected for Dissemination Recommendation

		Code No.
PROP-AC44	Oral Language (The Oral Language Program) James L. Olivero, Robert T. Reeback, and Helgi Osterreich, Principal Investigators Southwestern Cooperative Educational Laboratory	F-292-12-K02
PROP-AC59	Social Education (Social Education Program) Robert Randall, Principal Investigator Southwest Educational Development Laboratory	D-292-62-X02
PROP-AC62	African Music (Development of Materials for a One Year Course in African Music for the General Undergraduate Student) Vada E. Butcher, Principal Investigator Howard University	E-692-39-Z_c01
PROP-AC68	Effective Teaching Behavior (Instruments and Procedures for Describing Effective Teaching Behavior) Robert C. Wilson, Principal Investigator University of California (Berkeley)	A-886-08-B01
PROP-AC72	Cluster Concept (The Cluster Concept Program) Donald Maley, Principal Investigator University of Maryland	D-692-75-Z_d01
PROP-AC80	Prescribed Mathematics (Individually Prescribed Instruction - Mathematics) Robert Glaser, Principal Investigator Learning Research and Development Center (LRDC) University of Pittsburgh	D-632-49-P01
PROP-AC83	Sullivan Reading (The Sullivan Reading Program) M. W. Sullivan, Principal Investigator Sullivan Associates	F-992-12-$Z_1$01

		Code No.
PROP-AC92	Home-Oriented Rural Education (Home-Oriented Childhood Education Program for Rural America) Roy Alford, Principal Investigator Appalachia Educational Laboratory	F-691-01-A01
PROP-AC96	Needs Assessment Kit (Elementary School Evaluation KIT: Needs Assessment) Ralph Hoepfner, Principal Investigator Center for the Study of Evaluation	B-881-08-U01
PROP-AC110	Preschool Tests (PKTE) (CSE-ECRC Preschool/Kindergarten Test Evaluations) Ralph Hoepfner, Principal Investigator Center for the Study of Evaluation	B-883-01-U04
PROP-AC111	Elementary Tests (ESTE) (CSE Elementary School Test Evaluations) Guy Strickland, Principal Investigator Center for the Study of Evaluation	B-883-92-U05
PROP-AC130	Perceptual Skills Curriculum Robert Glaser and Jerome Rosner, Principal Investigators Learning Research and Development Center University of Pittsburgh	D-699-X9-P02
PROP-AC136	Sourcebook of Elementary Curricula (A Sourcebook of Elementary Curricula, Programs and Projects, ALERT) Samuel N. Henrie, Principal Investigator Far West Laboratory for Educational Research and Development	B-826-08-F03
PROP-AC142	Information Consultant (Educational Information Consultant) Wayne Rosenoff, Principal Investigator Far West Laboratory for Educational Research and Development	B-895-08-F09
PROP-AC144	Instructional Purposes (Determining Instructional Purposes) Joyce P. Gall and C. Lynn Jenks, Principal Investigators Far West Laboratory for Educational Research and Development	C-896-98-F11
PROP-AC145	Early Childhood Information (Early Childhood Information Unit) Stanley Chow, Principal Investigator Far West Laboratory for Educational Research and Development	B-891-09-F12

		Code No.
PROP-AC147	American Government Information (The American Government Information Unit) C. L. Hutchins, Principal Investigator Far West Laboratory for Educational Research and Development	B-823-65-F14
PROP-AC163	Curriculum for Mentally Retarded (An Intensive Training Curriculum for the Education of Young Educable Mentally Retarded Children) Sheila Ross, Principal Investigator Palo Alto Medical Research Foundation	D-323-99-Z_p 01
PROP-AC170	Project Management II (Project Management II: Basic Principles and Techniques of Project Management) C. Peter Cummings, Principal Investigator Research for Better Schools, Inc.	B-896-08-R06
PROP-AC172	Higher-Order Cognitive, Affective, and Interpersonal Skills) Ralph Hoepfner, Principal Investigator Center for the Study of Evaluation	B-883-X9-U06
PROP-AC173	Evaluation Workshops (Evaluation Workshop I: An Orientation) Stephen P. Klein, Principal Investigator Center for the Study of Evaluation	B-892-X8-U07
PROP-AC182	Pacemaker Games Program Dorothea M. Ross, Principal Investigator San Francisco Medical Center	F-372-42-Z_t 01
PROP-AC187	Geography Curriculum Project Marion J. Rice, Principal Investigator University of Georgia	D-692-69-Z_j 02

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PROP 1972-1973

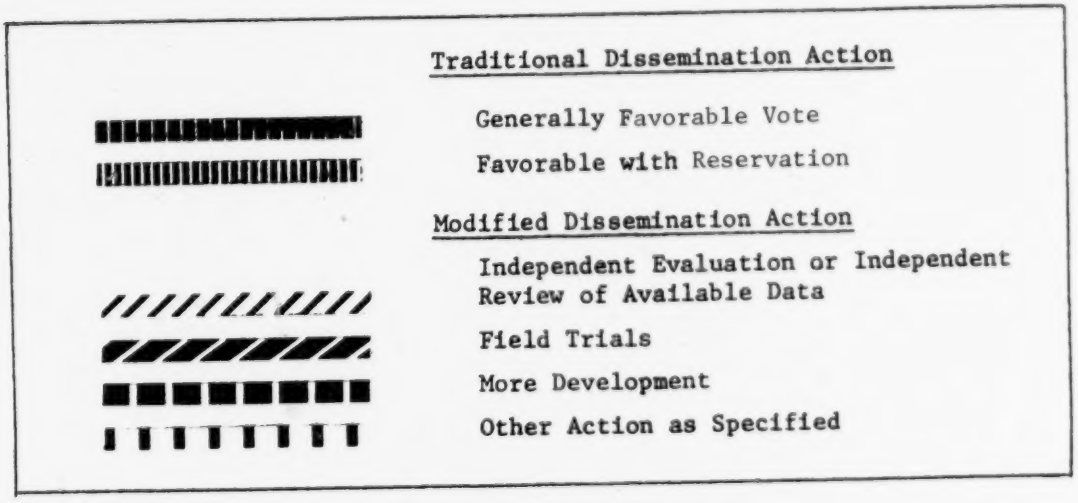
PANEL REVIEW OF PRODUCTS

for the

National Institute of Education

DISSEMINATION RECOMMENDATIONS

The 23 dissemination recommendations graphically displayed on the following pages are in essence the outcome of the 1972-1973 Panel Review of Products. The votes of panelists are shown in the boxes, the ten divisions of each box representing one vote each by each of the ten Panel members. Where fewer than ten of the Panel members voted, either because of absence or abstention, not all divisions are filled. Symbols used have been given the following meanings:



Where more than one of the symbols above was applied to a given product, the vote has been divided appropriately under the relevant headings. Notations on the graphic displays may be decoded by reference to the list shown below.

1 - Condition to be satisfied is indicated in Panel Discussion.
2 - Resubmission in 1974 is suggested.
3 - E = Independent Evaluation or Independent Review of Available Data is recommended.
T = Field Trials are recommended.
M = More Development is recommended.
O = Other Action as Specified is recommended.
4 - "Dollar Support" refers to dissemination dollars.

PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No. *PROP–AC* *Code No.*

A	B[1]	C[2]	D[3]	F
Definitely Recommended (Dollar Support)[4]	Conditionally Recommended (Dollar Support)[4]	Promising But Not Yet Ready (No Dollar Support)[4]	Action Prior to Dissemination (Dollar Support)[4]	Definitely Not Recommended (No Dollar Support)[4]

PANEL DISCUSSION

SAMPLE

PANELIST COMMENTS

NOTATION

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4 - "Dollar Support" refers to Dissemination Dollars.

Educational Testing Service, Princeton, New Jersey, February 1973

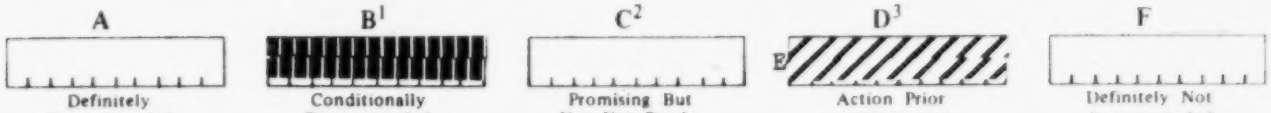
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP-AC*	*Code No.*
36	44	F-292-12-K02

The Oral Language Program
James L. Olivero, Robert T. Reeback, and Helgi Osterreich
Principal Investigators
Southwestern Cooperative Educational Laboratory



A	B[1]	C[2]	D[3] E	F
Definitely Recommended (Dollar Support)[4]	Conditionally Recommended (Dollar Support)[4]	Promising But Not Yet Ready (No Dollar Support)[4]	Action Prior to Dissemination (Dollar Support)[4]	Definitely Not Recommended (No Dollar Support)[4]

PANEL DISCUSSION

Independently obtained evidence is needed that gains of the magnitude reported are educationally valuable. The gains are quite substantial and the field testing is impressive. The product is recommended for dissemination with the caveat that, as in the case of all English-as-a-second-language programs, it should be an integral component of a bilingual education program and not be used separately. In addition to focusing on the educational value of the absolute gains, the independent evaluation should concern itself with the cost effectivenss of the product.

PANELIST COMMENTS

Specialist aid may be needed.

There should be an independent look at the tests and needs assessment, a check on gains.

NOTATION

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Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
44

Code No.
F-292-12-K02

The Oral Language Program

Principal Investigators: James L. Olivero, Robert T. Reeback, and
Helgi Osterreich
Southwestern Cooperative Educational Laboratory
1404 San Mateo Boulevard, S. E.
Albuquerque, New Mexico 87108

The Oral Language Program (OLP) is an instructional system in English as a second language to be used with children aged 5 to 7. It consists essentially of a teacher's manual and a 6-volume set of 150 lessons that cover specific language skills presented in a sequence determined by linguistic and language learning theory. Each lesson consists of a series of activities, including pronunciation exercises and conversation elements. Lesson objectives and a list of needed materials are given at the beginning of each lesson. There are also 5 prelessons designed to give practice in following instructions which are to precede the 150 content lessons.

OLP is a one-year program and can be used successfully by 5-year-olds. By the time a student is 8 years old the material seems too babyish and is sometimes rejected by the student. Therefore, it is recommended that the program be administered in kindergarten or in the first grade. That way, if a teacher does not complete the entire 150 lessons in one year, the program could be completed in a second year.

Also included are pupil assessment devices, teacher-training procedures and materials, program evaluation procedures, and installation and monitoring procedures. Other media used in presenting the lessons include puppets, records, and slide-tape presentations. Other props, such as classroom supplies, food, and toys, are used to give the lessons meaning.

The program was designed primarily for use with non-English speaking Mexican-American and Indian pupils but has also been used with children who speak a nonstandard dialect of English. It is not generally recommended that OLP be used in its entirety with nonstandard English speakers.

The developer has prepared materials for training teachers in the use of OLP and suggests the use of Quality Assurance Specialists who observe and help teachers with the program during the school year and conduct additional inservice training in the form of meetings after hours. These specialists are generally from the same school district as the teachers.

A teacher aide may also assist the teacher with the OLP. The aide's function, when trained by SWCEL, is to help with the other pupils while the

teacher conducts OLP lessons, to provide a cultural and language link with the pupils if their ethnicity differs from that of the teacher, to teach review lessons to those children who use them, and to teach the class when the teacher is absent.

Although the OLP can stand alone, the developers think of it as part of a complete Communication Arts Program (CAPI). This involves making prospective teachers of OLP familiar with the Laboratory's Reinforced Readiness Requisites, Teacher-Teacher Aide Companion Training, and Quality Assurance Program.

The Laboratory would prefer to train all persons related to a program only in the initial stages. As a program progresses, the Laboratory prefers to serve as a consultant and provide services where necessary, always giving a school district an option of reducing costs through the use of on-site personnel and equipment. Wherever possible the Laboratory calls in "master teachers," experienced and specially trained classroom teachers from other districts. The Laboratory encourages local management of the Program, as long as quality control checks are maintained. The Laboratory is willing to have performance accountability contracts with the districts which institute the OLP, although they insist upon very strict adherence to the program in all aspects. The Laboratory feels that teachers often take liberties with the OLP, deleting lessons which in their opinion are unimportant, as well as otherwise failing to seriously acknowledge the English program as basic to the curriculum. Indeed, the Laboratory insists that unless the OLP lessons become a daily feature in the curriculum, the students will not take the OLP seriously. They note that because of the required intensity of the teacher's effort, many teachers exclude the OLP lesson in favor of such things as other activities in the classroom and assemblies.

The program was field tested initially in 1968 and more extensively in 1969-70 and 1970-71. The first field testings in 1968 of the OLP after its initial development made use of 24 teachers from each of 5 local school districts in the Southwest. The pupils in the classes were Indians, Mexican-Americans, and Blacks. About 1500 pupils were involved in this field trial.

The Laboratory received feedback about implementation and use of the lessons. Information was obtained about such things as lesson length, pupil responsiveness, use of realia, size and composition of groups, and sources of difficulty.

Program redesign was carried out after the first field testings and during the 1969-70 school year the OLP was field tested again with 3 major objectives: 1) to identify the conditions in which the program is successful, 2) to compare the performance of pupils using the OLP with that of pupils not using the program, and 3) to determine necessary revisions in both the program and the teaching strategies used.

The findings of this field testing indicate that the mean pretest score of the pupils involved was below 100; i.e., 93.4, and the mean post-test score was 137.6; for a mean gain score of 44.2. A mean gain score increase of 30 was considered acceptable. Mean gain scores for groupings by sex, ethnic group, grade-level; i.e., either kindergarten or first grade, were comparable. The data further indicate that the greater the number of lessons completed, the greater the mean gain score. Field test findings are generally favorable. Results indicate that the OLP is successful with Spanish-speaking and Indian children who

enter school with an inadequate knowledge of English. Teachers in general liked the program, the materials, and the training they received. There is evidence that children who do not use the program do not learn to speak English as well.

Data for the 1970-71 field trial are based on teachers who had participated in summer institutes conducted by SWCEL and which covered their CAPI program. Usable data were obtained from 87 out of the 100 classes cooperating with SWCEL in experimental use of the CAPI. Pupil assignment to the program was generally done on the basis of the teachers' judgment, but all data reported were based on those pupils whose pretest scores on the SWCEL Test were less than 130. The number of pupils involved per class ranged from 4 to 22.

Data for the 1970-71 field trial confirm the impression gained in 1969-70 that the more lessons completed, the greater the mean gain score. The data also indicate that OLP helped enhance pupils' self-concepts and increased their confidence. Teachers and the QAS both felt that teachers gained in their relationships with pupils and in teaching techniques. In addition, pupils of teachers who have taught the program 2 or 3 years have a greater mean gain than pupils of first-time teachers.

Pre- and post-testing is oral. All tests are administered by trained testers and are recorded on cassettes. The cassettes are scored in the office and not in the field. There is a production problem related to the testing, since it is carried out under conditions which are not always optimum. The technical problem of production is one which at the moment is difficult to overcome and, because of the vast numbers of students involved, there seems to be no good solution to the problem of scoring. To have the tests marked by more than one scorer would, of course, increase the expense considerably.

The Laboratory goes to great effort to avoid claiming gains for students as if the gains were attributable solely to the OLP. The Laboratory acknowledges that students are influenced simultaneously by various programs and that principals provide the better teachers for the language program. Also, in most areas where the OLP is not in use, other programs are, so there are few adequate control groups. A recent project in Utah apparently was carried out with very tight controls. The results are said to be quite impressive in favor of the use of the OLP.

One teacher with one class constitutes the minimum scope of program use. Teacher training as conducted by SWCEL has two parts: summer institutes and inservice meetings during the school year. The summer institutes are devoted primarily to practice in using the OLP lessons through microteaching sessions and by pairs of teachers. The school year inservice meetings are to help raise and maintain teacher morale and provide the opportunity to present training components not presented during the summer.

Prepackaged teacher-training materials have been developed which will help make it possible to conduct some institutes without SWCEL staff. SWCEL staff does plan and/or coordinate institutes that can be taught by master teachers, usually teachers who have used the OLP.

Printed materials include the teacher's manual and a 6-volume set of books containing the 150 lessons. Assorted realia in the package include handpuppets, records, and slide-tape presentations. Other materials that can be used in the

lessons include materials usually found in the classroom. Teacher training and materials for an entire classroom for 1 year are included in the cost charged by SWCEL.

The program is complete and ready for installation. It can be purchased directly from the Laboratory. Cost of classroom materials for the OLP is $150 per classroom. This is a one-time installation. The only consumables are the Content tests. Training in all components of the CAFI; e.g., OLP and RRR, at a 2-week institute at SWCEL comes to approximately $350-$500 per person. The price changes in terms of the number of trainees presented and the services required. It is estimated that training in OLP at a one-week institute would be about 1/2 of the price quoted.

The product may be used without disruption of school space or scheduling as the classroom teacher uses the program within the context of a self-contained classroom. The product may be used with groups of up to 10 pupils, on either a class, school, or district-wide basis.

No specific information is available as to how many teachers and classrooms are currently using the OLP. Some teachers have been using the program since it was first developed and have been trained as "Master" teachers; they can present the program and train other teachers. In addition, universities such as New Mexico State University instituted preservice training in OLP with limited help of SWCEL personnel.

SWCEL also has brochures available for distribution and personnel are available to conduct summer institutes. The Laboratory is also available for consulting purposes.

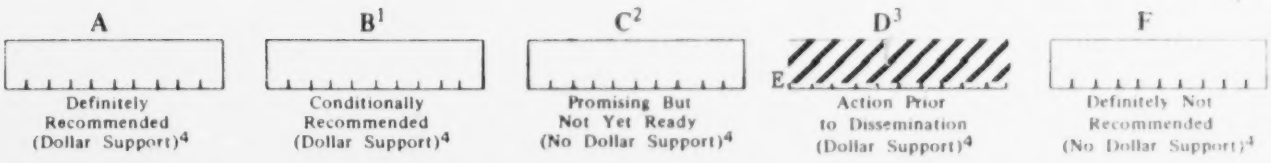
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP–AC*	*Code No.*
62	59	D-292-62-X02

Social Education Grades 1-3
Robert Randall, Principal Investigator
Southwest Educational Development Laboratory



PANEL DISCUSSION

The test data are weak and the results are not particularly exciting; nonetheless, the product appears to serve a need in an area in which not much else is available and minimal training time is required.

Dissemination funds would be well allocated for independent evaluation efforts.

PANELIST COMMENTS

Teachers like the grades 1 and 2 materials.

NOTATION

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Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
59

Code No.
D-292-62-X02

Social Education Program

Principal Investigator: Robert Randall
Southwest Educational Development Laboratory
800 Brazos Street
Austin, Texas 78701

The Social Education Program is designed to teach social concepts to English-speaking children from linguistically and culturally different backgrounds in first, second, and third grades through 30-minute daily lessons. Filmstrips, audiotapes, puzzles, teaching pictures, and card games enable students who are nonreaders to use the materials.

The materials have been designed to emphasize the positive aspects of the background a pupil brings to the learning situation. The focus with the Social Education Program has been placed upon the following objectives: to recognize and make provisions for the social concepts and skill deprivation characteristic of children from economically disadvantaged homes; to reflect the social experiences and value orientations of children from culturally different backgrounds; to provide opportunity for children to develop rational understanding of cultural diversity; to assure, through structure, the sequential development of social concepts and skills; to concentrate on the development of intellectual processes.

The First Year Program focuses on the family. Sixteen units introduce concepts such as dependence, interdependence, roles, communication, and education. The Second Year Program focuses on the needs of families in a community. Eighteen instructional units cover overlapping social, public, and economic activities and introduce to the child adults involved in providing for community needs. The Third Year Program expands on concepts gained from the second year's study of a community by presenting a study of many communities, contrasting and comparing peoples and their cultures. The 13 units contrast various geographic conditions and represent the simple and the complex, the urban and the rural, and the old and the new. At each of the 3 levels there are auxiliary materials provided by the developer that assist the teacher at the beginning and the end of the course and throughout the school year.

In 1970-71 grades 1 and 2 materials were pilot tested. There were 1,734 students and 64 teachers involved in the evaluation. Third-grade materials were pilot tested in 1971-72 with 732 youngsters and approximately 25 teachers. Field test sites were in Dallas, Austin, Galveston, Houston, North Forest, Addine, Corpus Christi, Del Valle, and Wichita Falls, all in Texas; and in

Lansing, Michigan; Hanna, Wyoming; New Iberia, Louisiana; Hartford, Connecticut; and Clovis, New Mexico. Data collected at these sites included pre- and post-tests and user difficulty information. Students in May of 1971 were administered two types of instruments: criterion-referenced tests developed by the Laboratory and the Social Studies section of the Tests of Basic Experiences (TOBE), published by CTB/McGraw-Hill.

Criterion-referenced tests were developed from specific program objectives. Relevant concepts were tested by means of a content-related item. As there are neither national nor local norms for criterion-referenced measures, the Laboratory used a level of acceptable response as the criterion. Pupils participating in the program were expected to get at least 75% of the test items correct, and results are reported in terms of this criterion. In both the first- and second-grade groups, the youngsters met the criterion in about 80% of the cases.

TOBE results at the first grade were slightly above the norm. (The mean percentile was 52 for five sites, N about 550, S.D., 25.) No second grade norms were available, but using first-grade norms, mean percentiles ranged at four sites from 62 to 72. TOBE percentile scores for Mexican-American students, at the end of the first grade, were lower than for black students, who in turn, scored lower than Anglo students. The lower percentile for the Mexican-Americans is not surprising in view of the fact that the Mexican-American child enters school with different language skills than those of English-speaking children. The differences are considerably less at grade two, with Anglos still scoring above the other two. No important differences were observed among ethnic groups on the criterion-referenced tests. Thus the differences on the TOBE were accounted for by the developer as cultural experience differences.

As stated, in 1971-72 grades 1 and 2 materials were field tested and grade 3 materials have undergone some preliminary evaluations. The evaluation design for grades 1 and 2 included pre- and post-criterion-referenced and normative tests with a limited number of comparison groups. The data from the tests given in connection with the grade 3 materials have not yet been analyzed.

Teachers completed questionnaires on user difficulty of the program. They thought highly of the curriculum materials and of their effectiveness in holding children's interest and maintaining their involvement.

An external review of the Social Education Program was done in August of 1972. A draft Evaluation Report with extensive data was issued in December 1972.

One classroom teacher for each group of approximately thirty youngsters is required. The revised materials may be used effectively by coordinators without receiving training from the Laboratory. One half-day of inservice training in the use of the program materials is necessary for participating teachers.

The cost of the materials is as follows:

Grade 1 -- complete set -- $165.00
Grade 1 -- staff development packet -- $35.00

Grade 2 -- complete set -- $165.00
Grade 2 -- staff development packet -- $35.00

Grade 3 -- complete set -- $320.00
Grade 3 -- staff development packet -- $35.00
Grade 3 -- core set -- $220.00 (used with teacher packet below)
Grade 3 -- teacher packet -- $105.00

Costs would run approximately $6 to $7 per pupil per annum. The materials are available on a noncommercial basis from Southwest Educational Development Laboratory.

The developer has indicated that dissemination funds would be used to identify concentrations of disadvantaged students, to prepare an inexpensive brochure on the Social Education Program for distribution to school directors in these areas, and to send Laboratory resource people out to target metropolitan areas to meet with potential users.

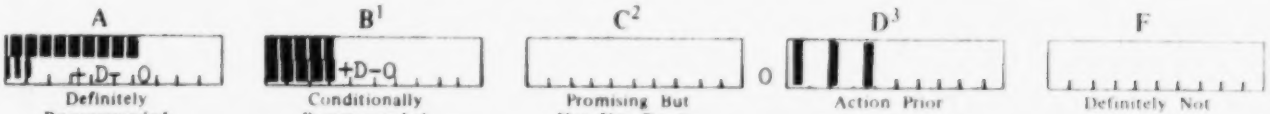
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP-AC*	*Code No.*
89	62	E-692-39-Z$_C$ 01

Development of Materials for a One Year Course in African Music
for the General Undergraduate Student
Vada E. Butcher, Principal Investigator
Howard University



A — Definitely Recommended (Dollar Support)[4]
B[1] — Conditionally Recommended (Dollar Support)[4]
C[2] — Promising But Not Yet Ready (No Dollar Support)[4]
O
D[3] — Action Prior to Dissemination (Dollar Support)[4]
F — Definitely Not Recommended (No Dollar Support)[4]

PANEL DISCUSSION

An effort should be made to recommend to the developer an evaluation procedure which would encompass limited objectives other than global attitudinal change. For example, it would be useful to know what use teachers trained in the workshops make of the product in their classrooms.

PANELIST COMMENTS

Validity/evaluation data weak but difficult to assemble.

The goals are testable.

Doesn't really fit our currently required validation standards.

Cognitive gains?

Data does not mention that students learned of contributions from non-white groups.

The real payoff would come from the development of courses on Latin American, Mexican-American, Jewish, and other ethnically oriented music. The product's real value would be in existing social studies and artistic curricula.

NOTATION

1 - Condition to be satisfied is indicated in Panel Discussion.
2 - Resubmission in 1974 is suggested.
3 - E = Independent Evaluation or Independent Review of Available Data, T = Field Trials, M = More Development, O = Other Action as Specified.
4 - "Dollar Support" refers to Dissemination Dollars.

PROP-AC
62

Code No.
E-692-39-Z$_c$01

Development of Materials for a One Year Course in African Music for the General Undergraduate Student

Principal Investigator: Vada E. Butcher
College of Fine Arts
Howard University
Washington, D. C.

The materials available consist of two course outlines, Introduction to African Music and Introduction to Afro-American Music, that together represent a one-year course; a series of monographs, units, and papers on areas and composers of African music; slides and tapes of rhythmic patterns and African instruments; bibliographies and discographies; and tapes of works of Afro-American composers. The materials were created with the assistance of recognized African and Afro-American musicians. Resource materials are being added continuously and a collection of African instruments is available on loan to schools and colleges.

The course materials developed by the Project in African Music (now the Center for Ethnic Music) at Howard University were originally intended for general education curricula in colleges, but the materials were specifically examined for suitability at the high school level and they have been structured and organized in such a way as to permit their use in secondary schools with minimum modification.

The Project was originally concerned primarily with African music; the course in Afro-American music was added in response to a rising demand for Black Studies programs. The Center hopes, in addition to providing an opportunity to study music of intrinsic merit, to contribute to the realization of the general education goal of responsible citizenship by affording students increased understanding of and respect for their fellow American citizens and to correct in some measure a long-standing omission in American education by recognizing the contributions of nonwhite minorities to the strength and cultural richness of the United States.

The materials and workshops through which teachers were familiarized with the courses have been tested for effectiveness in a program designed by specialists in educational research.

A Likert-type questionnaire was sent to those who attended workshops and a similar two-part questionnaire was sent to recipients of Project materials. Details are reported in the HEW final report of the Project, Development of Materials for a One Year Course in African Music for the General Undergraduate Student, September 1970. (This report also includes data on the Afro-American Music course.) The more than 150 questionnaire responses indicated an overwhelming positive attitude toward the course, the instructors, and the individual components of the materials, but the Likert-type items were not worded in such a way as to control for the response set of acquiescence. Positive results would probably have been obtained even if this had been done, however, since the percentages of responses at the extreme positive end of the Likert scale were very large.

No formal attempt has been made to validate the materials against stated goals by means of rigorously designed, controlled experiments; the goals lie chiefly in the areas of attitudinal change and appreciation, both extremely difficult to measure given the current state of the art of measurement.

A professionally certified music teacher is preferred to present the materials, but other teachers might be able to present the materials if they attended one or more special workshops.

No product-oriented training is thought to be necessary, although attendance at a workshop would be highly desirable. Access to native performers of African and Afro-American music would greatly enhance the nature of the course presented.

The cost of attending a 2-week workshop given at Howard University is $44 plus transportation and living expenses. Monographs, tapes ($6 each, with more than a dozen available), and a synchronized slide-tape presentation ($25) may be borrowed. Assuming that a school already has the services of a full-time music teacher, installation costs would be minimal (perhaps $5 per student for a class of 25) and maintenance costs even less. (It is assumed that the school already has tape recorders and other play-back equipment.)

The course is suitable for an entire class, either as the curriculum for an existing music course or as a new course. Segments of the course might even be incorporated into a social studies or anthropology course. The minimum unit for installation would seem to be the class, although there is no reason why an individual student could not work with the components of the course on an independent study basis. There does not seem to be any upper limit on its use--an entire school system might adopt it. While the courses were devised in response to a felt need for music courses to be included in Black Studies curricula, the music involved is inherently interesting to many nonblack students.

The materials developed thus far have been shared with all workshop participants, with numerous visitors, and with representatives of institutions who requested them, with the understanding that they would be expected to assist in evaluation. Exhibits of the materials developed and of African instruments were held at the Reston, Virginia, Festival of Black Art and at the Black Music

and Musicians' Project at Virginia State College at Petersburg in 1969. A number of concerts were held in conjunction with the Project for students and others at Howard. An article on the Project appeared in the November 1971 issue of the Music Educators Journal.

The Center would like to expand its program so that it could develop comparable materials for other ethnic musics: Oriental, Latin-American, Mexican-American, and American Indian.

Possible problems in widespread dissemination efforts would include the limited numbers of authentic African instruments available for loan and the limited number of actual performers who would be available (especially in some parts of the country) either to come directly to schools or to perform at concerts which students in the courses might attend.

With the availability of additional dissemination funds, problems of this kind might be alleviated and more high school and college teachers could participate in the 2-week workshops designed to familiarize them with the course materials.

PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP AC*	*Code No.*
51	68	A-886-08-B01

Instruments and Procedures for Describing Effective Teacher Behavior
Robert C. Wilson, Principal Investigator
University of California (Berkeley)

A	B[1] *	C[2]	D[3]	F
Definitely Recommended (Dollar Support)[4]	Conditionally Recommended (Dollar Support)[4]	Promising But Not Yet Ready (No Dollar Support)[4]	M Action Prior to Dissemination (Dollar Support)[4]	Definitely Not Recommended (No Dollar Support)[4]

*If D-M is done

PANEL DISCUSSION

Despite weaknesses in validation and other reservations, instruments such as this can help force action to assess teacher effectiveness. The instrument does show technical expertise in its development, although there are competing instruments that are probably equally good. Since students are inevitably going to rate faculty, they should use as good an instrument as they can obtain. Dissemination to student groups only is recommended, but other competing instruments should accompany it. A covering letter should made reference to weaknesses inherent in this type of instrument and the limited uses to which it can be put. Development should center on additional teacher behaviors and effects on student performance.

PANELIST COMMENTS

How do faculty react to its use?

Popularity of certain courses can contaminate teacher ratings. May encourage copying secondary characteristics of good teachers.

Consultant help may be needed prior to adoption.

Could cause plenty of controversy

Competing products at the University of Illinois, Michigan State University, Syracuse, etc., all with norms and validation.

NOTATION

1 - Condition to be satisfied is indicated in Panel Discussion.
2 - Resubmission in 1974 is suggested.
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4 - "Dollar Support" refers to Dissemination Dollars.

Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
68

Code No.
A-886-08-B01

Instruments and Procedures for Describing Effective Teaching Behavior

Principal Investigator: Robert C. Wilson
Teaching Innovation and Evaluation Service
University of California
Berkeley, California 94720

The Instruments and Procedures for Describing Effective Teaching Behavior has the following objectives: 1) to provide systematic, flexible, and economical procedures for evaluating college teachers; 2) to assist them by providing feedback about how their teaching is perceived by students and colleagues; 3) to provide a broader information base for making tenure and promotion decisions; and 4) to assist students in their choice of courses and teachers.

The instruments consist of 4 forms, any combination of which may be used. There are short (5 items) and medium-length (36 items) forms for obtaining teacher descriptions from students and short (5 items) and medium-length (27 items) forms for obtaining teacher descriptions from colleagues. The student-completed forms yield numerical scores on 5 scales of teacher behavior as perceived by students and the colleague-completed forms yield numerical scores on 5 different scales of teacher behavior as perceived by colleagues. In addition, each of the 4 forms provides space for inclusion of items that might be relevant to a particular teaching situation and for open-ended comments. Each form also has 2 items in which the teacher is rated on a global scale in comparison with his colleagues in his department and the whole institution. Finally there is a User's Manual that describes the forms; gives suggestions for adapting them to local situations; suggests possible uses for the forms; and gives directions for administering, scoring, and interpreting the resultant teacher profiles. A scoring program for use on a CDC-6400 computer is available. This program analyzes the teacher description data and prints out a summary report for each class of each instructor.

The forms may be adapted for a variety of uses and situations. The most important use of these forms for effecting improvement in college teaching, in the developer's view, is the establishment of departmental and/or institution-wide norms and the providing of each teacher with these norms along with his or her individual teaching profile.

The forms were developed as a result of part of an extensive study of teaching done in 1967 and 1968 at the University of California at Davis. In May 1967 a sample of 338 students and 119 faculty members returned separate questionnaires in which they identified the 2 faculty members who in their

opinion were the best and worst teachers. Excellent agreement was reported between the students and teachers on this identification and also between the students in this survey and in both an earlier independent survey and a later -- May 1968 -- cross validation survey of 1,015 students.

Each student in the 1967 sample was also asked, for each of the 2 teachers he named as best and worst, whether each of 158 descriptors of aspects of teaching was characteristic of that teacher. A factor analysis was done of 91 of the descriptors that proved to discriminate the "best" from the "worst" teachers to a high degree of significance. The 5 scales (Analytic/Synthetic Approach, Organization/Clarity, Instructor-Group Interaction, Instructor-Individual Student Interaction, and Dynamism/Enthusiasm) used in both versions of the forms came from this analysis. A similar factor analysis of 67 colleague descriptors that were most discriminating resulted in the 5 additional scales found in the forms for colleagues (Research Activity and Recognition, Intellectual Breadth, Participation in the Academic Community, Relations with Students, and Concern for Teaching).

Five summary descriptions of scales used with students were included in the May 1968 cross validation study, along with full lists of the items from the earlier study. Mean scores of the summary descriptions correlated very well with the scores obtained from the full lists. Essentially it is the summary descriptions that comprise the present short forms and samples from the full lists that comprise the medium-length forms.

The students and faculty asked to participate in the 1967 survey were picked at random. The students who responded represented 4% of the student body and 38% of those approached. The faculty members who responded represented 21% of the resident teaching faculty and 54% of those approached. This self-selection may have introduced bias, however, the students responding to the survey were reported to be reasonably representative of the student body in terms of sex, class level, major field of study, and grade-point average. Also the agreement to a very high degree of significance on the identification of the best and worst teachers between the 1967 student survey and the earlier survey that had a 90% return provided indirect evidence, according to the developers, that significant bias was not introduced.

The study also found that "best" and "worst" teachers engage in the same professional activities and allocate their time among academic pursuits in about the same ways. Finally, it was reported that, in general, student ratings of best teachers showed only negligible correlations with academic rank of instructor, class level, number of courses previously taken in the same department, class size, required versus optional course, course in major or not, sex of respondent, class level of respondent, grade-point average, and expected grade in the course.

The instruments for this product were developed using all departments in a university, not a single department, and also using cross validation. According to the developers, such features are not found in many other similar instruments, although they do feel that there are other good instruments of this type in existence.

In 1972-73, the instruments were in use in more than 100 colleges and universities. By January 1973, over 1,000 requests for information had been received by the developers. A follow-up study of these requesters was done in

May and June 1972. In this study, 846 questionnaires were mailed on May 12 to individuals who had requested information before then, of which 344 were returned by the cutoff date of June 5. The cutoff date was early because of the scheduled termination of funds for the project on June 30. Those returning questionnaires were representative of the total sample by position (47% professors, 28% administrators, 16% research groups, and 10% other including student group, librarian, and committee chairmen), by type of department, and by type of institution (55% universities, 26% 4-year colleges, 9% 2-year colleges, and 10% other).

The respondents reported a variety of reasons for requesting information and channels by which they found out about the study. Also, 63% planned to use the materials as background and 56% for possible ideas for developing their own instruments, and only 20% planned to use the questionnaires themselves. However, after seeing the questionnaires, 95% found the materials useful for the purposes requested; 40% recommended the materials to someone else; and the question "Have you actually used or do you plan to use the questionnaires or some portion of them?" was answered "Yes" by 26%, "Maybe" by 54%, and "No" by only 20%. Faculty were more inclined to use the questionnaires than administrators or researchers. Those answering "Yes" to the question above also planned that the results would be given to individual instructors (76%), given to department (53%), given to administrators (34%), considered in tenure decisions (31%), given to students (23%), considered in teaching awards (11%), and other (26%).

The product could be implemented by an individual teacher, a department, or a whole institution. No organizational changes should be required. The number and type of personnel required for implementation depend on the scope. If implemented by a department, the administration, reduction of data, and interpretation can be handled by a Committee. If implementation is institutional, centralized data-reduction facilities may be necessary. These may often be provided by an existing unit such as a research or testing office. No specialized training for the personnel is necessary; the necessary information for implementation is provided in a user's manual. For large-scale implementation, advice by a member of the psychology, education, or sociology department is recommended.

The materials required are the User's Manual and the forms. The Manual and sample forms are sent free of charge from the principal investigator. The user may then reproduce and adapt them to his own situation.

No special facilities are necessary if data reduction is done by hand. If optical-scanning response sheets or punched cards are used, access to the appropriate machines is necessary. However, the total cost of an evaluation depends on many factors such as the numbers of students and teachers involved, whether departmental or institutional norms are computed, and the form in which the results are disseminated. The developers estimate a cost range of about $5 to $25 per teacher evaluated.

Since many faculty members have reservations about the institution of formal procedures for evaluating teaching, successful implementation requires early and continuous consultation with the faculty. Safeguards must be provided to insure that the information gathered takes into account individual and local circumstances.

Dissemination efforts in the past have not been very vigorous. These efforts have included: 1) A summary report of the project that appeared in the monograph, The Recognition and Evaluation of College Teaching (1970) by Kenneth Eble for the Project to Improve College Teaching of the AAUP; 2) a cut-out coupon for requesting materials that appeared in the D & R Report of the Center for Educational Development and Research (CEDaR); 3) articles in newsletters and journals; 4) speeches by project staff to professional societies; and 5) word of mouth. In addition, 2000 copies of the monograph Evaluation of University Teaching (by Hildebrand, Wilson, and Dienst) were distributed through Kenneth Eble and the AAUP. Ongoing work on the product has been terminated and there are no more funds available for dissemination. Informal efforts such as those listed above will probably continue.

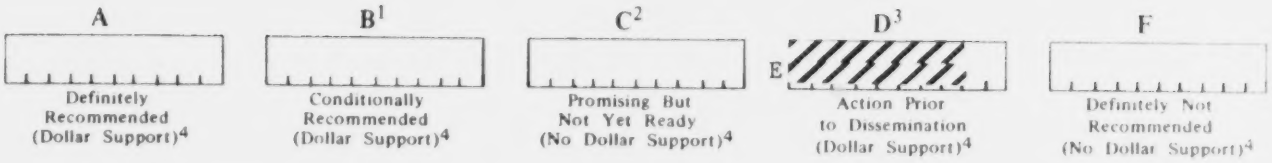
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP AC*	*Code No.*
63	72	D-692-75-Zd01

The Cluster Concept Program
Donald Maley, Principal Investigator
University of Maryland



PANEL DISCUSSION

Although clearly not ready for extensive dissemination, this product would be particularly important in any focus on career education. There is some indication of positive results with the use of the product, although the n's were small. Further field trials might be done without expending dissemination funds. Otherwise, a funded independent evaluation seems to be the best plan of action.

PANELIST COMMENTS

No on-the-job data for the control group. Positive and negative results are highly mixed.

Only metal forming begins to be ready -- there are no real data showing the value of the other clusters.

A well-equipped vocational-technical high school is needed to use this product without high installation costs.

NOTATION Only 8 of 10 panelists present during final balloting.

1 - Condition to be satisfied is indicated in Panel Discussion.
2 - Resubmission in 1974 is suggested.
3 - E = Independent Evaluation or Independent Review of Available Data, T = Field Trials, M = More Development, O = Other Action as Specified.
4 - "Dollar Support" refers to Dissemination Dollars.

Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
72

Code No.
D-692-75-Z$_d$01

Cluster Concept Program
(CCP)

Principal Investigator: Donald Maley
Industrial Education Department
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College Park, Maryland 20742

The Cluster Concept Program (CCP) is a form of vocational education which attempts to prepare the individual for entering gainful employment in a number of occupations which have sufficient commonality in skill requirements to permit a high degree of mobility within the vocational cluster. The program is not conceived of as a means of training master craftsmen in any one occupation.

In Phase I of program development, begun in 1965, the cluster concept was investigated as a form of vocational education. Three clusters were defined: 1) construction, 2) electro-mechanical installation and repair, and 3) metal-forming and fabrication. These operations provided the basis for such things as course outlines and objective achievement test items. The chief aim of Phase II was to identify and train competent teachers for implementing cluster concept pilot studies. Eleven teachers were selected and received special training in the Spring semester of 1967 at the University of Maryland. Phase III (1967-68) was concerned with the implementation and evaluation of the program. Phase IV, which was not funded, proposed an intensive validation study.

Essentially, CCP focuses on the mastery of tasks needed for entry in the occupations within each cluster. For example, one task for welder, which is in the metal-forming and fabrication cluster, is "arc welding ferrous metals with an A.C.-welder to produce a horizontal tee joint." The performance on this task can be judged by looking at the human requirements in each of the following areas: communications, measurement, mathematics, science, skills, and information. The communications requirement is "reading blueprints to determine type of weld required." The measurement requirement is "measuring stock with a rule or scale to determine length." Each human requirement is assessed for its degree of commonality with other occupations in the cluster. For example, the communications requirement in welding is common to all occupations in the cluster; the science requirement is common only within welding.

The appropriateness of tasks for particular occupations was established through a panel of representatives of industry and business consisting of supervisors, owners, and union officials. This panel determined the appropriateness of the tasks and assigned them levels. Level I tasks were those required for entry into the job; Level II were advanced requirements that would be needed

within 6 months after job entry. These levels were constantly monitored for current applicability.

Pretests and post-tests were administered to 4 control and 4 experimental groups in each cluster for the purpose of determining the impact of CCP on student behaviors in the cognitive, psychomotor, and affective domains. The total number of students in the experimental groups was 143; in the control group, 150. Statistical procedures were applied to scores on a cluster concept achievement test and the Mechanical Reasoning Test (part of the Differential Aptitude Test battery). Data were analyzed by school. For the achievement test scores, the analysis showed that: 1) Three construction programs (schools) out of 4 achieved significantly higher scores than the control groups on the post-tests. Three schools showed significant gains between pre- and post-tests. 2) In all 4 schools implementing the metal-forming and fabrication cluster program, the experimental groups achieved significantly higher scores than the control groups on the post-tests. All schools showed significant gains between the pre- and post-tests. 3) Three schools implemented the electro-mechanical installation and repair cluster. Because of numerous failures, operations in one school were terminated. Neither of the remaining schools achieved significant gains or significantly higher post-test scores than the control group.

Data derived from the Mechanical Reasoning Test indicated that neither CCP nor traditional vocational education had significant effects on the development of the abilities required to solve problems of applied science and technology as measured by the test.

In the affective domain, the pre- and post-test scores on the Minnesota Vocational Interest Inventory indicated no clear patterns or trends. However, the CCP groups showed more flexibility of occupational choice than did the control groups.

Evaluation of the adequacy and appropriateness of course content was accomplished through the use of checklists and interviews by field staff, with the following results: 1) In the construction cluster schools, 34% to 67% of the tasks in the occupations within the cluster were completed. Of the tasks completed, 50% to 66% of the tasks needed review in anticipation of revisions or restructuring. 2) Fifty to 67% of the tasks were completed in the metal-forming and fabrication cluster. Data gathered indicated that it was necessary to review 25% to 34% of the tasks. 3) In the 2 electro-mechanical cluster schools, approximately 50% of the tasks were completed; of these, two-thirds needed review.

Support dimensions and teacher effectiveness were evaluated through observations and interviews. In addition, the following data-gathering devices were used: 1) personal vitae and records of cluster teachers; 2) visual media such as drawings, plans, photos, and written descriptions of practical work performed while implementing course outlines; 3) student progress charts; and 4) student evaluation charts. Field staff, school administrators, and school personnel participated in collecting data.

Support dimensions evaluation showed that because of the prevalence of a requisition-acquisition time lag (period of time between ordering materials and receiving them), the sequence and balance of the structured clusters were disturbed. Where administrative support was strong, these problems were gradually resolved, but took their toll in leaving many of the occupational tasks untried.

Teacher evaluation revealed that in the construction cluster, teachers with degrees in industrial education tended to conduct the program in a superior way. Most teachers emphasized those occupational tasks for which the vocational classroom was originally designed and equipped. One of the 4 teachers provided the students with all the tasks specified in the instructional materials.

All the teachers in the metal-forming cluster had B.S. degrees, varying amounts of graduate course work, and industrial experience. This group of cluster teachers was evaluated to be most effective in meeting the goals of the program. There was also a great deal of teacher interaction with industrial firms which resulted in free materials, technical information, and summer jobs for the students. Both electro-mechanical teachers were resourceful in obtaining materials and equipment from local industries. They tended to emphasize air conditioning, refrigeration, and typewriter repair, with little or no consideration of the other facets in their cluster.

Special teacher selection and training are vital to the successful implementation of the program; however, screening and training programs are not now available at any university or educational center. Community and industrial involvement is also necessary so that clusters and occupations are relevant to real-life requirements and so that continuity between school and work is established.

The program requires special classroom layouts and facilities and highly specialized equipment. A rough count of the supply list for the electro-mechanical cluster produced no less than 170 different equipment and supply items. The costs of the CCP curriculum materials are minimal, but the cost of equipping a laboratory for one or more of the clusters is $25,000-$40,000. Clearly, a well-equipped, vocational-technical high school is needed to use this product without high installation costs.

The principal investigator has noted in his summary of Phase III findings that the most significant factor which could undermine the successful implementation of the program is inadequate supplies, materials, and equipment. The requisition-acquisition time lag suggests that all cluster programs should be in operation for several years before evaluation is attempted. The absence of consideration and planning for female students may be a serious drawback if such a program is instituted in schools on a nationwide basis in the future.

A teacher preparation curriculum, curriculum materials, and instructional plans are available from ERIC. No additional dissemination efforts are planned at this time.

Although clearly not ready for extensive dissemination, this product would be particularly important in any focus on career education. There is some indication of positive results with the use of the product, although the number of students in the study was small. Further field trials might be done without expending dissemination funds. Otherwise, a funded independent evaluation seems to be the best plan of action.

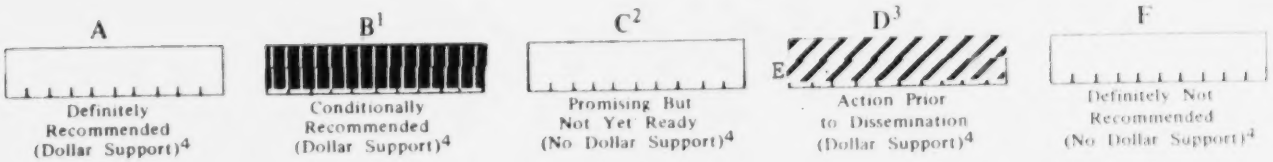
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP-AC*	*Code No*
67	80	D-632-49-P01

Individually Prescribed Instruction - Mathematics
Robert Glaser, Principal Investigator
Learning Research and Development Center (LRDC)
University of Pittsburgh



PANEL DISCUSSION

Additional evidence is needed that this product is superior to other similar products. Most panelists felt that the costs are very high. Consequently, further independent comparative evaluation is called for with regard to such things as cost effectiveness, and potential side effects, such as a postive influence on teachers, and gains in reading skills by pupils.

PANELIST COMMENTS

If summative evaluation cannot be done until the student completes 6 years, IPI is inappropriate for pupils from low income families because of high mobility.

NOTATION

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2 - Resubmission in 1974 is suggested.
3 - E = Independent Evaluation or Independent Review of Available Data, T = Field Trials, M = More Development, O = Other Action as Specified.
4 - "Dollar Support" refers to Dissemination Dollars.

Educational Testing Service, Princeton, New Jersey, February 1973

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80

Code No.
D-632-49-P01

Individually Prescribed Instruction
Mathematics

Principal Investigator: Robert Glaser
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IPI Mathematics is a program of instruction in mathematics for grades K-6 which is designed to individualize instruction through sequenced student performance objectives, related instructional materials, and diagnostic instruments tied closely to units of instruction. Currently, 363 instructional objectives exist for IPI Mathematics across 10 broad content categories. These categories are: numeration, addition-subtraction, multiplication, division, fractions, money, time, measure, geometry, and applications. The 363 objectives are divided into "Levels" which correspond roughly to grades. For example, there are 40 objectives in Level A, which is roughly equivalent to Kindergarten.

Materials are of two types: classroom instructional and assessment materials and training materials for teachers and administrators. Assessment materials consist of placement tests, pre- and post-unit tests, and curriculum-embedded tests. The test questions are sometimes multiple-choice and sometimes open-ended. Learning materials consist of 85 IPI-constructed units covering the various behavorial objectives by placement level. Audio tapes correlated with instructional units are part of the learning system.

Students progress at their own rate (generally without instruction) through the various units. When a student achieves an acceptable score on a unit post-test, a new "prescription" is written. A unit is typically several pages long and focuses on a few objectives. The unit pretest consists of several items related to the objectives and a criterion score (say 85%) is set for passing. If a student does not reach the criterion score he is assigned the appropriate instructional unit. When finished with the unit, the student takes the unit post-test. If he achieves the mastery score set for the unit, the teacher gives the student a new assignment. If the student does not achieve the mastery score, he is recycled through the same unit. The materials in these instructional units are similar to programmed materials. Classrooms are "managed" by monitoring student progress through the instructional units by use of the assessment materials. Student profiles, placement profiles, and prescription writing sheets are necessary to handle routine forms and administer

unit tests. The traditional role of the classroom teacher must be considerably altered to effectively administer IPI. New roles for the teacher include classroom management, prescription preparation, arranging for personal or peer tutoring, and small group instruction. IPI is usable over a wide range of abilities.

In 1965 the IPI Mathematics products were installed in Oakleaf School, Pittsburgh, Pennsylvania, mainly to test the feasibility of individualized instruction in mathematics. Revisions since this initial introduction of IPI have been toward the Mark II version, which was marketed in September 1972.

The original IPI development plan called for 5 phases. Phase 1 was the identification of 5 school districts which would agree to demonstrate and test IPI. Phase 2 was the establishment of a demonstration training school in addition to the Oakleaf School. Phase 3 involved the training of staff and installation of IPI in 5 pilot schools. Phase 4 was the evaluation and necessary revision of the IPI program. And finally, Phase 5 was to spread the use of IPI to other schools.

During Phase 1, the 5 demonstration and development schools served different socioeconomic populations. Schools in Pennsylvania, Delaware, and New Jersey participated in Phase 1 and school staff were trained at the University of Pittsburgh in 1966. Many of the changes in materials that were made during Phase 1 were suggested by teachers in participating classrooms. During and following Phase 1, several sources of information were used to monitor IPI in the development and pilot schools. These were 1) data from placement tests and pre- and post-unit tests, 2) curriculum-embedded tests, 3) rate of learning data, as evidenced by the time required to go from point A to point B in the hierarchical sequence, 4) use of trained observers, 5) parent and teacher questionnaires, 6) student interviews, and 7) standardized tests.

Following the 1966-67 tryout of materials, the informal worksheets were revised and the 1967-68 edition of IPI was published by Appleton-Century-Crofts. Prior to publication, extensive changes in format and in the ordering of objectives were made based on the formative evaluation. Changes in IPI have been made during the intervening summers since 1967-68. However, most of the changes were related to the preparation of IPI as a commercially acceptable product rather than to major changes in content.

Considerable data exist concerning the achievement of IPI students on standardized tests. There are over 25 references to summative evaluations (some comparative) using both standardized and affective indicators. The Iowa Test of Basic Skills was used in a number of studies. According to summary data provided in Product Development Report 17 (January 1972): 1) IPI students achieve as well as or better than non-IPI students on standardized measures and achieve higher than non-IPI students on measures designed for IPI; 2) parent reactions have been positive; 3) IPI is effective over a variety of populations - rural, disadvantaged, regular, and retarded. IPI has been extensively monitored and tested in many states. A 1971 report prepared on IPI by Tom Kriewall of the Institute for Educational Research provides an independent judgment of IPI. The report was prepared for a member school district using IPI and concluded that pupils who

begin their study of IPI in grade 1 demonstrate by grade 3 significantly superior achievement compared to non-IPI pupils. All pupil groups sampled indicated generally positive attitudes toward mathematics, with those pupils in first-year IPI materials exhibiting the most positive attitude. IPI teachers' opinions were reported as strongly divided--the majority strongly supported IPI but a minority just as strongly opposed it. Teachers did not feel IPI to be useful in learning individualizing techniques. (Note: The developers claim no real summative evaluation on IPI can be done since it is under continuous modification. A student who started in kindergarten in 1967 with the first published version of IPI would by 1972 be in the 5th grade of IPI (assuming continuous exposure). Hence, no student has yet been exposed to a complete IPI course, K-6.)

In addition to the regular classroom teacher, several paraprofessional aides per class are necessary to do such things as keep records and administer tests. Teachers and administrators must be trained to use IPI and to interpret and utilize test results. Teacher training materials have been prepared for IPI staff to train local administrators to train teachers. One week is required for the administrators to train teachers and three days are required to train the teacher aides. Organization is required to provide flexible scheduling, to coordinate professional and paraprofessional responsibilities, and to prepare the principal to cope with somewhat different problems.

No special facilities or equipment are needed. However, the various instructional materials are numerous and require a considerable amount of space. An area is needed for storing materials, taking unit tests, record-keeping, and individual student study space. Several paraprofessional aides per class are necessary. Audio tapes require the use of several cassette players per classroom.

Budget: Based on 450 pupils

Administrative training	$ 300.00
Training for 18 teachers	5,400.00
Teacher materials	180.00
Aide materials	25.00
Cost of 5 aides at $3,000/aide for year	15,000.00
Student materials	4.500.00
Shelving	500.00
Total Budget	$25,905.00

Other Cost Information

$6.50 per student for 150-400 students, publisher trains one person
$6.50 per student for 401-800 students, publisher trains two people
$6.50 per student for 800+ students, publisher trains three people

In addition to the instructional materials, other publications are:

1) Aiding IPI Mathematics: A Manual for Teacher Aides in IPI Mathematics.

2) Teaching IPI Mathematics: A set of training materials for teachers.

3) Audio-Visual Sources for IPI Mathematics.

Materials are available from:

Research for Better Schools, Inc.
Philadelphia, Pennsylvania

In December of 1971 IPI Mathematics was being used in over 200 school systems. Research for Better Schools is in charge of disseminating IPI.

The Mark II version was released for use during 1972-73. A nationwide system of demonstration schools, with schools in each state equipped to demonstrate IPI in operation and train adminstrators and staff, is planned.

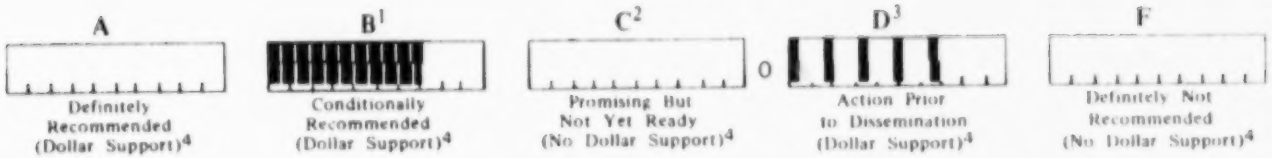
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP AC*	*Code No.*
41	83	F-992-12-Z$_1$01

The Sullivan Reading Program
M. W. Sullivan, Principal Investigator
Sullivan Associates
Menlo Park, California



PANEL DISCUSSION

No funds should be allocated except for dissemination into areas where a presently unmet need is recognized by NIE. The product is successful and the data on it look good. It seems appropriate to use subsidy help to get the product into places where special needs exist. The general question of dissemination backing of commercially marketed products needs careful policy consideration by NIE. The American Institutes of Research report on the product should be part of any dissemination package.

PANELIST COMMENTS

Appears positive, especially for use in the inner-city.

Extensive data, well controlled verification.

NOTATION
3 panelists abstained from voting.

1 - Condition to be satisfied is indicated in Panel Discussion.
2 - Resubmission in 1974 is suggested.
3 - E = Independent Evaluation or Independent Review of Available Data, T = Field Trials, M = More Development, O = Other Action as Specified.
4 - "Dollar Support" refers to Dissemination Dollars.

Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
83

Code No.
F-992-12-Z_i01

The Sullivan Reading Program

Principal Investigator: M. W. Sullivan
Sullivan Associates
Menlo Park, California

The Sullivan Reading Program consists of several different series of materials with different names and different purposes. However, the major part of the materials is made up of two basic series, the Sullivan Reading Program and the Programmed Reading Series. These are intended primarily for children at the kindergarten to third-grade levels but they can also be used in remedial reading instruction for children and adults of all ages. The Sullivan reading materials provide an individualized reading program that is programmed and is also based on what linguists have found out about how children learn. The materials for both series are planned so that the basic skills needed for reading the English language are presented in logical order.

The first of the two series listed, the Sullivan Reading Program, is designed primarily to help children who have reading problems. It is divided into 5 numbered series, each corresponding to one school year. The series for the lower grades consists of several programmed texts accompanied by several readers, while the series for the middle grades has only texts. A teacher's manual and a test booklet are included in each series. Also available are supplementary tapes for those pupils who need special help and a class record book for teachers to record pupils' progress efficiently.

The Programmed Reading Series is made up of a prereading program and 3 basal reading series. The prereading program is intended for children in kindergarten and first grade. It makes use of alphabet cards, sound-symbol cards, an alphabet chart, a prereader, and a teacher's guide. Series I, which is used for grade 1, consists of Programmed Reading books, accompanying storybooks, a student test booklet, and a response booklet. Series II for grade 2 and Series III for grade 3 contain the same kinds of materials as Series I. This program is designed more for general readers than the other program, which is suitable for inner-city pupils and those with reading problems as well as for general readers.

All the Sullivan reading materials, with the exception of the Programmed Reading Series, are used in a systems approach to reading known as Project READ. This project provides reading materials, educational consultants, a parent information and involvement program, and teacher training.

A project making use of the Programmed Reading Series, Project SPAR, is intended to provide a total system for achieving both accountability and performance in reading. It also provides inservice and preservice training for the total school staff, not just teachers. It involves several other major components in addition to the Programmed Reading Program.

After developmental testing in Virginia during the early stages of preparing the materials, Programmed Reading materials were tested in temporary form in Mt. View, California during 1961-1963. Several regular classes and 1 remedial class were involved: a first-grade group of 9 girls and 13 boys, a second-grade group of 6 girls and 7 boys, and a remedial group of second- and third-graders which included 5 girls and 6 boys. A control group was comparable to the experimental group in terms of age, sex, IQ, and socioeconomic background (middle class). Both groups were tested at the beginning of the school year with the appropriate Lee-Clark or Gates reading test. They were retested in January and June. The experimental first-grade group showed an average growth of 2.0 years and the control group, 0.9 year. In the second-grade, the growth was 1.4 years compared with 0.9 year. The remedial class achieved an average growth of 2.3 years. Teacher and pupil comments were elicited and materials were revised accordingly.

During 1965-1966 the Programmed Reading materials were used in one first-grade class in each of 4 schools in Colorado Springs, Colorado. A control group was set up in each school. The experimental group of 114 was comparable to the control group of 113 in terms of reading readiness and IQ. At the end of the year, the Metropolitan Achievement Primary I Battery was administered to both groups. Statistical differences in favor of the experimental group were found in the areas of word knowledge, word discrimination, and total reading.

Some schools and districts performed their own evaluations after using the materials or had outside auditors do so. One of the evaluations using outside auditors was in Dallas, with a sample size of 8,000 covering several grade levels. This study, Evaluation of the Targeted Achievement in the Reading Program, covered 4 different programs used in the various schools of the Dallas District. Information about all programs is included, but summary statements indicate that the largest overall gains appeared to be made by students enrolled in the BRL Sullivan Reading Program. This impression was reinforced by results on criterion-referenced tests that substantiated results on standardized tests.

A report on Project READ evaluation, using the Sullivan Reading materials, and conducted in Inglewood, California, indicated that that the experimental groups in grades 1 to 3 attained consistently higher means on the Cooperative Primary Reading Test used as the post-test than the controls; i.e., for Grade 1, the mean was 2.0 for the project (experimental) group and 1.8 for the controls; for Grade 2, the means were 2.9 and 2.6, respectively; and for Grade 3, 3.3 and 3.0.

Other research reports on the Programmed Reading Series indicate that those students who had used the Sullivan materials generally had higher means on language and reading post-tests than the control groups with which they were compared.

The reading materials may be used by a single teacher in a self-contained classroom. Teacher training is recommended as very helpful but is not absolutely necessary since the teachers' manuals that accompany each set of materials provide complete information on using the materials successfully. Teacher training and consultation are provided as part of Project READ. Consultants will provide help before and during use and will also demonstrate the most effective ways to use the materials. Consultants are also available throughout the school year to work with students and teachers.

The programs are individualized so that pupils and/or the teacher can set up schedules and space to suit their own needs. No changes in staff or facilities are necessary and no equipment other than that supplied by the product itself is required. There should be no system disruption and materials may be used on a classroom, school, or district basis.

The materials described previously are required to implement the Sullivan Reading Program and Programmed Reading program and all are available. Since some of the programmed texts require that the children write in the book, these must be considered consumable, but other materials would entail a one-time cost. The basic texts for the 5 series of the Sullivan Reading Program cost $1.69 each, while the readers for series 1 to 5 cost $.99 each. The teacher's manual costs $.99 while each test booklet, class record book, and placement examination costs $.49. A manual describing Behavioral Objectives that pertain to the Reading Program costs $1.49 and supplementary tapes that can be used with pupils needing extra help cost $18.00 for the set.

Project READ, which uses the Sullivan Reading materials, costs $20.00 per student for a full year's program, or $15 per student for a one-semester or summer session. If a school district can place an order for $40,000 or more for BRL Sullivan Reading materials, the district is eligible for Project READ. The cost per pupil is $.20 less for Project READ than without added services.

Specific price information for each part of the Programmed Reading is not presently available, although information about Project SPAR which uses the Programmed Reading materials indicates that the cost is $15 to $30 per pupil depending on what is contracted for.

Most materials, except for the Programmed Reading program, are published and marketed by Behavioral Research Laboratories, Palo Alto, California. Programmed Reading is published and marketed by the Webster Division of McGraw-Hill Book Company, New York, New York.

Approximately 5 million people are using Sullivan reading materials of various kinds, with at least 100 large urban school districts using Project READ, the all-encompassing systems approach to reading. Generally, it seems that the Sullivan Reading Program (BRL) is used by inner-city schools for remedial purposes, while the Programmed Reading materials (McGraw-Hill) seem to be used by schools with pupils less likely to have serious reading problems.

In regard to dissemination, it seems that all parts of the country are reached through mailing and advertising campaigns. Very little direct contacting of schools to sell the materials is done; most sales are buyer-initiated.

Several areas were mentioned as being comparatively untouched. For the Programmed materials (McGraw-Hill), these areas were the Pacific Northwest, the Southeast, and the North Central regions around Wisconsin and the Dakotas. For the Sullivan (BRL) Reading Materials, the untouched areas of the country included the Pacific Northwest and New England. Alaska was mentioned as just beginning to open up and inquiries are being received from that state.

PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

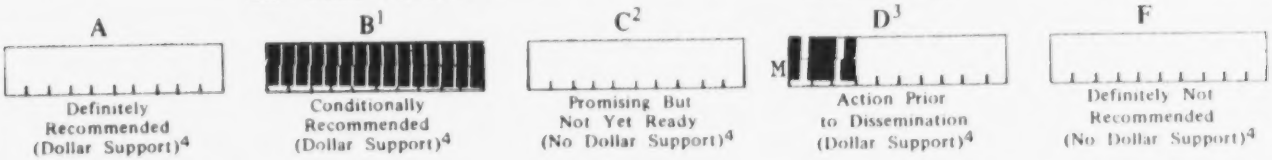
DISSEMINATION RECOMMENDATION

Book No.	*PROP-AC*	*Code No*
43	92	F-691-01-A01

Home-Oriented Childhood Education Program for Rural America
Roy W. Alford, Principal Investigator
Appalachia Educational Laboratory

Black and White Materials and Home Visitors

Development of Color Videotapes



PANEL DISCUSSION

The major interest is in seeing the simple (black and white) visual materials find use before resources are spent on more complex color materials. The dissemination support recommended is for the black and white materials and home visitors only, without the use of the mobile unit, although there is some interest in the mobile unit, especially because it provides for social interaction not otherwise available. A "product" such as this needs a reasonable chance to prove its effectiveness, although development funding seems beyond the scope of a dissemination program. A minority voted for development funds for producing color videotapes; there was concern that entirely new production would be needed for these.

PANELIST COMMENTS

True cost figures should be obtained by an independent audit.

In how many homes is television available?

NOTATION

1 - Condition to be satisfied is indicated in Panel Discussion.
2 - Resubmission in 1974 is suggested.
3 - E = Independent Evaluation or Independent Review of Available Data, T = Field Trials, M = More Development, O = Other Action as Specified.
4 - "Dollar Support" refers to Dissemination Dollars.

Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
92

Code No.
F-691-01-A01

Home-Oriented Childhood Education Program for Rural America

Principal Investigator: Roy W. Alford
Appalachia Educational Laboratory
P.O. Box 1348
Charleston, West Virginia 25325

The Appalachia Preschool Education Program (APEP - also referred to as HOPE--Home-Oriented Preschool Education) is a plan for a home-oriented instructional system designed for 3-, 4-, and 5-year-old children. The program was designed as an alternative form or type of preschool education experience for children living in sparsely populated rural areas and was intended for large-scale implementation, i.e., school districts, regions or state-wide systems.

The program itself consists of three basic elements: 1) 30 minute television lessons which are broadcast into participants' homes five days a week, 2) a weekly home visit by a paraprofessional who discusses the program with parents and children and who delivers materials for them to use, and 3) group instruction given once each week in a mobile classroom. An important aspect of the program is the active involvement of parents in teaching or aiding their children in the learning process. A second basic consideration involves the accessibility of television to participants.

The primary objective of the Appalachia Educational Laboratory in devising HOPE was to develop a new approach to preschool education adapted to the needs of children in rural areas as an alternative to the traditional kindergarten which is stationary and requires the transportation of the children to the school. It was to be implemented by multi-district units and was to make extensive use of technology, media, mobile facilities, and differentiated staff. The general objectives of this program are to increase the learning of 3-, 4-, and 5-year-old children by means of televised instruction (to provide new experiences, to encourage children to want to learn, to initiate basic skill instruction, and to provide parents with a first-hand observation of the instruction of the children), mobile classroom instruction (to initiate social interaction in small groups, to complement televised instruction and to initiate appropriate group instruction), and parent instruction (to promote positive parent-child interaction, to facilitate the use of home instructional materials, and to enable the parent to perform in an effective instructional role). Primary and secondary behavioral objectives are explicitly defined in the Curriculum Planning Guide. The specific objectives of the television

programs, mobile classroom lessons, and home visitor lessons for children relate to the categories of 1) orienting and attending skills, 2) motor activity, 3) language construction, 4) descriptive language, 5) cognition/sensory discriminations, 6) cognition/higher order acts, and 7) affect.

It was originally the intention of the project designers at AEL to develop and examine a system that, if found to be feasible, could then be developed by individual school districts or regions or states to meet their own needs. To this end, they made available for administrators a set of seven publications that describe the elements of the program and the requirements for its implementation including costs based on a projected population of 25,000 participants. These publications are: Program Overview and Requirements, Field Director's Manual, Handbook for Mobile Classroom Teachers and Aides, Home Visitors Handbooks, Personnel Training Guide, Curriculum Planning Guide, and Materials Preparation Guide.

During the process of development, however, interest grew in obtaining the already prepared basic elements of the program, principally the taped TV broadcasts and the materials to be used by home visitors, parents and mobile classrooms. Hence the matter of identifying the costs of this product, or in fact, what the actual product is at this point, are clouded by this dual aspect regarding dissemination.

HOPE was field tested for 3 years, from 1968 to 1971, in southern West Virginia. Approximately 300 children were involved in the instructional groups and another 120 children were assigned to a control group.

The three main aspects of the program, 1) television broadcasts, 2) home visitors, and 3) mobile classrooms, were examined for their effect on the total program by assigning children to different treatment groups with some receiving only the television instruction, some receiving television instruction plus home visitor instruction, and some receiving television, home visitor and mobile classroom instruction. According to the outcomes of this study, the mobile classroom instruction contributed significantly to gains in social skills development, but did not contribute significantly to gains in cognitive development. In general, however, significant gains were found in cognitive development for the experimental groups receiving instruction through the APEP program over the control group that did not receive formal instruction.

In another study in which the performance of children in the HOPE program was compared with the performance of children in a standard kindergarten program, the HOPE groups scored higher on the average on the cognitive measures than did the kindergarten groups. On this basis, it was concluded by the researchers that, if the HOPE objectives are appropriate for 5-year-old children, then the HOPE is a more cost-effective means of attaining them than a standard kindergarten program. The total cost of the APEP was estimated to be about half that of the standard kindergarten program.

There are some basic administrative concerns in considering the use of this product. First, because of a high initial cost for the production of video tapes and materials, the program is not economically feasible for use with small groups unless these tapes and materials were to be made available as part of the package (this, of course, would require careful examination by the user to be certain the

objectives underlying development of the materials were consistent with identified needs). Secondly, consideration must be given to basic assumptions underlying the use of the program. Three of these are that 1) there is adequate TV coverage available, 2) there are appropriate locations for mobile classrooms, and 3) the potential for parent involvement is high.

Following is a brief summary of the personnel, materials, and facilities required for implementing the program including some basic costs.

A Field Team, consisting of mobile classroom teachers and aides, paraprofessional home visitors, the field director, and his staff is needed. This group initiates and operates the local program. The local program may be a single community, one school district, or several school districts working cooperatively. The field office staff includes a field director, an assistant field director (depending on the size of the program), and a secretary. Specialized knowledge in early childhood education is required. This field office staff can manage a maximum of 16 units (150 children each), although a smaller number of units is preferred. Each unit of 150 children requires one mobile teacher, one aide, and four home visitors.

A centrally located field office is needed. Basic requirements include: office space for the staff; storage room for books and teaching materials; heating, cooling, lighting, and ventilation; parking space for mobile classrooms (one per unit of 150 children); and space for small group testing (desirable but not necessary).

Field operation costs are estimated at between $242.15 and $250.33 per year per child. (Increasing or decreasing the number of enrollees makes no appreciable difference in cost.)

Field costs for capital outlay for materials and video tapes are estimated at $106.88 per child (or an annual cost of $21.68 per child if amortized over a 5-year period). The total annual cost of both field operation and capital outlay is approximately $263.83 per child (based on 1972 cost figures).

A Materials Production Center is needed to produce television lessons and related materials for all children and parents in the program. These include: 170 new TV lessons per year; 34 weekly editions each of Parents' Guide, Home Visitor Activities, Mobile Classroom Instructional Guide, and Master Curriculum Planning Guide; numerous activities items for children; and feedback and evaluation instruments.

Facilities and equipment for the Materials Production Center consists of Office and Work Space: including storage, a conference room, and darkroom facilities; Technical Equipment: 2 cameras (minimum), one video recorder, one film chain, and electronic editing; Studio: suitable lighting, at least 3 permanent sets (e.g., living room, kitchen, and exterior), and occasional use of temporary sets. It is suggested that provision for production centers be arranged by lease from either commercial or educational TV stations.

The minimum Materials Production Staff required to produce the materials noted above includes a director, field-coordinator, procedure-director, on-camera teacher, two curriculum specialists, artist-photographer, media

specialist, production assistant, and two secretaries. A script writer is desirable. Also needed is an operating crew consisting of 2 cameramen, one audio engineer, and one video engineer. The staff is based on a small geographic area and a relatively smaller number of children.

As stated, a major obstacle of the dissemination of the process developed is the cost of TV lesson production. NIE has provided one hundred thousand dollars for the production of two pilot tapes of marketable quality by the AEL before June 1, 1973. Further funding by NIE will be considered after NIE has reviewed the pilot tapes. If the necessary TV lessons are produced and made available to those who wish to implement the process, the rapid dissemination of the process will follow.

The Consortium of Appalachian State Departments of Education has been organized by the 7 states served by AEL. The initial purpose of this Consortium is to foster the implementation of the Home-Oriented Preschool Education program in the Consortium member states. Final organization meetings were planned for January 1973 in Washington, D. C. to create the capability within the State departments of education to fulfill the purpose of the Consortium.

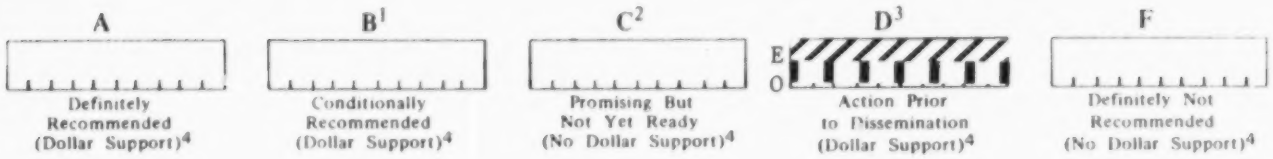
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP-AC*	*Code No.*
01	96	B-881-08-U01

Elementary School Evaluation Kit: Needs Assessment
Ralph Hoepfner, Principal Investigator
Center for the Study of Evaluation



PANEL DISCUSSION

A comparative evaluation should be made with such products as PROP-AC-144 (Book No. 28) - Determining Instructional Purposes. The product should be combined with PROP-AC-173 (Book No. 14) - Evaluation Workshop I: An Orientation - and dissemination recommendations made in terms of the common portions first and the unique parts separately. The product will be a good model for a number of people. NIE should insist on its production at lower cost (although no funds should be allocated for cost reduction); the existence of any residual government copyright should be investigated in this connection. A low-cost version should come up for PROP Preview in 1974.

PANELIST COMMENTS

Does not need dissemination money.

Good to have a systematic approach to evaluation.

Too broadly conceived -- dangerous.

Omission of coverage on certain areas may have had ill effect.

NOTATION

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Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
96

Code No.
B-881-08-U01

Elementary School Evaluation KIT: Needs Assessment

Principal Investigator: Ralph Hoepfner
Center for the Study of Evaluation
UCLA Graduate School of Education
Los Angeles, California 90024

The Elementary School Evaluation KIT: Needs Assessment is intended to provide a tool for the elementary school principal who wishes to identify those educational goals that are considered important by himself, his staff, and the community and that need to receive greater emphasis in his school. The KIT includes, for each participant in the assessment, a set of 106 cards, each identifying a possible educational goal, generally expressed in terms of one or several related behavioral objectives; four blank cards for additional goals; five mats onto which cards are sorted, labelled on a continuum from "unimportant" to "most important"; and a tally sheet to record how each goal was rated, with the goals listed in alphabetical order. In addition, the principal receives tally sheets to average the ranking of goals and forms on which to enter other necessary computations. A questionnaire including the same goals is available to be used in place of the card-sorting method. The manual offers detailed plans for sampling teachers, parents, and community, including sample letters and memos designed to win cooperation. After the top-priority goals are identified by the method described, the school population is assessed in these skills. Available norm-referenced tests for each of the goals at each grade level are listed and rated in the manual according to their measurement validity, examinee appropriateness, administrative usability, and normed technical excellence. Tables for finding the school norm as well as a differentiated school norm that adjusts a school's score according to its socioeconomic, racial, and geographical characteristics are also included. At this point, mathematical calculations are employed to determine which goal should be chosen for improvement, taking into account its priority ranking, the value and probability of improving student performance in that goal area (information provided), the current level of student performance, and the typical level of student performance. The entire process is very carefully justified and explained. CSE feels that the KIT provides enough information to let the principal do a job he would once have had to hire a consultant to do for him. The case studies suggest that it should take one school year to administer and interpret the results of the Needs Assessment.

The stated objectives of the field test were: " 1) to determine whether various procedures contained in the KIT had been implemented by the principal; 2) to determine any changes that had occurred in the following areas that

could have resulted from use of the KIT-- a) the attitude of the principal and his staff toward evaluation, b) the methods used to make decisions relative to the instructional program of the school, and c) the understanding of the principal and his staff of the evaluation principles on which the KIT is based; and 3) to determine the subjective opinion of the principal and his staff toward the contents of the KIT." (From the CSE Report No. 70, p. 10.) Information obtained was used to improve the KIT.

Seventy-nine schools nationwide, as well as 103 schools in California, participated in the field testing. An effort was made to achieve a representative sample in both the schools nationwide and the schools in California. The schools nationwide had requested participation in the project; the California schools paid $1000 each to the Association of California School Administrators, which was running a project on accountability of which this was a part, to participate; thus one may assume that all schools were positive about their involvement. The school principal was required to complete 5 questionnaires related to school characteristics and to the 5 parts of the KIT. Results are reported separately for the national sample and the California sample. In addition, 2 case studies were completed in participating California schools. These studies included the administration of a sociometric device to identify influential teachers, in order to determine the effect of their attitude toward the KIT on the staff in general, and interviews with the principal and some participating teachers and parents. The results of the field testing led to some modifications of the KIT.

The KIT, costing $89.95, includes: a manual, tally and computation sheets, a set of sorting mats and decks of cards in a number equal to the number of people to participate in the largest group to be involved in card sorting, and enough questionnaires for all the parents to be polled. There is enough material for an average-sized elementary school. Additional material is available.

The KIT was scheduled for publication by Allyn and Bacon (Boston) on January 1, 1973.

PROP 1973

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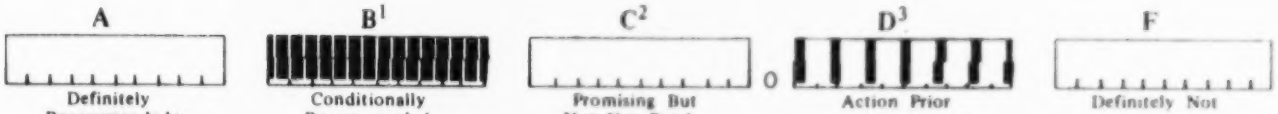
DISSEMINATION RECOMMENDATION

Book No.	*PROP–AC*	*Code No.*
02	110	B-883-01-U04

CSE-ECRC Preschool/Kindergarten Test Evaluations
Ralph Hoepfner, Principal Investigator
Center for the Study of Evaluation



PANEL DISCUSSION

Users of this product should understand that the additive nature of the scale used in evaluation may hide serious deficiencies in individual tests and that the validities of the tests were determined by fairly arbitrary methods. The product's main value is as a catalog, since the evaluations presented are limited. Training is required in the use of the product.

PANELIST COMMENTS

Needed at this time. Many teachers of preschool classes are looking for instruments. A systematic approach, but the evaluations are subjective.

The field test was not appropriate.

Undesirable side effects are suspected.

Ideally, [what is needed is] a book giving real good validated appraisals of [each] test's usefulness and validity, including, ideally, how much its use improves students' educational attainment.

How does the book compare with Buros's Mental Measurements Yearbooks?

NOTATION

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Educational Testing Service, Princeton, New Jersey February 1973

PROP-AC
110

Code No.
B-883-01-U04

CSE-ECRC Preschool/Kindergarten Test Evaluations

Principal Investigator: Ralph Hoepfner
Center for the Study of Evaluation
UCLA Graduate School of Education
Los Angeles, California 90024

CSE-ECRC Preschool/Kindergarten Test Evaluations is a critical and objective guide to all published assessment, diagnostic, and prognostic instruments for preschool and kindergarten children and is intended for use by principals, counselors, and directors to select tests that are valid, appropriate, usable, and technically sound. The final compilation covers approximately 120 tests, including over 630 subtests with separately normed scores.

The 79 objectives in the taxonomy of goals of preschool and kindergarten education were obtained through interviews of practitioners and early childhood specialists as well as an exhaustive search of programs and the literature. These represent a comprehensive statement of preschool and kindergarten education. Tests were then keyed to these educational objectives and evaluated by measurement experts and educators on the 24 criteria of the MEAN evaluation system.

MEAN is an acronym for a system developed by CSE which reflects 4 critical areas of concern to test users: 1) measurement validity: content and construct, concurrent and predictive; 2) examinee appropriateness (comprehension, content, and instructions); format (visual principles, quality of illustrations, time and pacing, and recording responses); 3) administrative usability: administration (test administration, training of administrators, and administration time); interpretation (norm range, score interpretation, norm groups, score conversion, score interpretation, and the possibility of making decisions); 4) normed technical excellence (stability, internal consistency, alternate forms, replicability, range of coverage, and gradation of scores).

Each test is categorized as a preschool (30 to 59 months) and/or a kindergarten (60 to 72 months) measure according to the publishers' claims and given a numerical rating for each of the criteria and a summary letter grade (Good, Fair, or Poor) for each of the 4 main categories. The subcharacteristic ratings are considered to be additive and as such may obscure drawbacks in the instruments. The developer points out that few instruments aimed at

this level can be considered to be adequate or appropriate for this population. The initial portion of the book describes the objectives and point-grade procedures for each criterion. In the evaluation section, the instruments are identified by title, section, and publisher and located in alphabetical order under the appropriate goals which are ordered alphabetically by primary goal. An index of goals and tests and a list of addresses of publishers are included.

No field testing of the materials is planned. There will be an examination of the impact which the product has on people who have used the evaluation, including a sampling of the people who have bought the book. This report will parallel the report on the field testing of the CSE Elementary School Evaluation Kit (CSE Report No. 70). Although not yet published, it is now in final form and should be printed by February 1973.

Personnel who use this book should have experience or training in school administration or school evaluation. No other expertise is required of the people using the book.

The book costs $5.00 and is available from The Center for the Study of Evaluation of Instructional Programs. It is to be revised and updated every 2 to 3 years. A supplement will also be published containing the prices of all instruments. Dr. Seligman of the Center indicates that there are no plans to have this product published commercially. Evidently there had been some initial contacts made, but publishers were not interested. The Center has also felt that it is performing a service that could be done better by a nonprofit educational organization.

The Center has distributed about 3,000-4,000 copies to school administrators, child development centers, and organizations concerned with early childhood education. Materials from the Center have been reviewed in several educational journals and this has aided in the dissemination of the product.

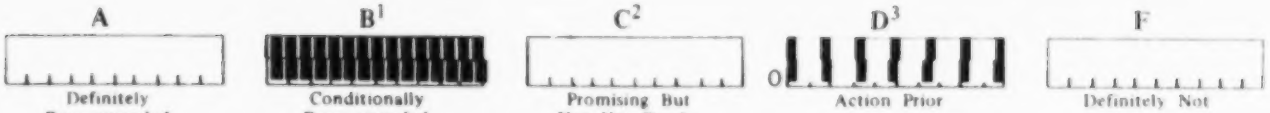
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP–AC*	*Code No*
03	111	B-883-92-U05

CSE Elementary School Test Evaluations
Guy Strickland, Principal Investigator
Center for the Study of the Evaluation



A — Definitely Recommended (Dollar Support)[4]
B[1] — Conditionally Recommended (Dollar Support)[4]
C[2] — Promising But Not Yet Ready (No Dollar Support)[4]
D[3] — Action Prior to Dissemination (Dollar Support)[4]
F — Definitely Not Recommended (No Dollar Support)[4]

PANEL DISCUSSION

Users of this product should understand that the a-ditive nature of the scale used in evaluation may hide serious deficiencies in individual tests and that the validites of the tests were determined by fairly arbitrary methods. The product's main value is as a catalog, since the evaluations presented are limited. It is preferable that the product be used by those with training in evaluation.

PANELIST COMMENTS

The sytematic approach to evaluating tests in the school setting is much needed. These evaluations are subjective.

How does this book compare with Buros's Mental Measurements Yearbooks?

Field-test data are lacking.

Ideally, [what is needed is] a book giving real good validated appraisals of [each] test's usefulness and validity, including, ideally, how much its use improves students' educational attainment.

No dollars.

NOTATION

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2 - Resubmission in 1974 is suggested.
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Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
111

Code No.
B-883-92-U05

CSE Elementary School Test Evaluations (ESTE)

Principal Investigator: Ralph Hoepfner
Center for the Study of Evaluation
UCLA Graduate School of Education
Los Angeles, California 90024

ESTE is a comprehensive appraisal of 1649 published tests for elementary school students. Each test is keyed to one of 145 educational objectives and is rated on each of the 24 criteria of the MEAN evaluation system, the main categories of which are measurement validity, examinee appropriateness, administrative usability, and normed technical excellence. The ratings are presented for each of grades 1, 3, 5, and 6 in a grid of educational objectives versus rating criteria. Each instrument is identified by title, section, and publisher and is located in alphabetical order under the objective to which it is keyed. Following the numerical ratings, each test is given a summary grade: Good, Fair, or Poor, for each of the four main criteria. In the introduction, the exhaustive list of educational objectives which CSE developed are outlined and the MEAN criteria and point-grade procedure are described in detail. ESTE was designed to provide information for making decisions regarding assessment devices and to be used primarily by school administrators and secondarily by counselors, researchers, state and federal agencies, and test producers.

CSE views the advantages of ESTE as "conciseness, currency, educational relevance, objectivity, and consistency" (p. vi). This product is an expanded version of one of the 5 instructional chapters which comprise the Elementary School Evaluation KIT: Needs Assessment, first stage of the CSE School Evaluation Project model. The 5 chapters of the first stage are Description, Choosing Goals, Selecting Tests, Collecting Information, and Selecting Critical Needs Areas. Similar products are planned for 4 other evaluation stages: Program Planning, Implementation Evaluation, Progress Evaluation, and Outcome Evaluation. Additional versions of the evaluations have been developed for preschool and secondary education.

Several studies relating to the evaluation of the product have been published. These are:

1. Ralph Hoepfner, et al., "Report on the Field Testing of the CSE Elementary School Evaluation KIT: Needs Assessment," CSE Report No. 70, September 1971.

Pertinent to ESTE were the responses of principals to questionnaire #3 on Booklet III: Selecting Tests. (ESTE is an expanded version of Booklet III of the KIT.) Over 80% of the principals in both samples rated Booklet III good or very good on clarity, organization, appropriateness, usefulness, and length.

2. F. K. Hassenstamm, "A Survey of the Users of CSE Elementary School Test Evaluations," CSE Working Paper No. 19, August 1971.

Questionnaires were sent to everyone who purchased the book and, of the 2413 sent, 697 were returned in time to be used in the study. The responses were fairly consistent across the categories of respondents and in summary the response was considered positive.

3. Ralph Hoepfner, "A Test of Tests," CSE Report No. 69, May 1971.

In this report, the data obtained from a factor analysis performed on the 24 ratings given each test under the MEAN evaluation system are tabulated and analyzed. It was determined that the 4 consistent dimensions upon which tests vary are usability, norm quality, focus, and psychometric quality.

4. R. Hoepfner and W. Doherty, "What Test Publishers Publish," CSE Report No. 75, February 1972.

Using the ESTE data, analyses of variance and cluster analyses were performed; the results were significant. The obtained publisher profiles and clusters are presented in the report and are intended to be of assistance to both test purchasers and test producers.

Several questions have been raised about the ratings in ESTE. Dr. Richard Seligman, the assistant director of the project, said that the listed authors were the raters and described the rating procedures as follows: Each test was independently rated by a minimum of 3 raters and if they did not agree, other raters were consulted. Each rating is not an average, but a debated agreement. However, since only one of the 4 authors was a psychometrician, all of the raters for any given test could have been graduate students. It would seem important to note which of the ratings were made by whom.

The ratings on the "Measurement Validity" criterion appear to be almost entirely subjective. The authors themselves say, "Empirical measurements of such validities were not demanded for the evaluations, although they were desirable." (p. x) However, according to the APA Standards (1966), "To examine construct validity requires a combination of logical and empirical attack." (p. 13) The first part of the validity rating termed "Content and Construct" validity is so subjective that the allowance of as much as 10 points for it is questionable. The second part of the validity rating, termed "Predictive or Concurrent" validity, is also subjective, but to a lesser degree. For this rating it is noted that manuals were consulted but that "No attempt was made to comb the research literature for additional or more supportive findings." (p. xvii) Fully 15 points out of the total of 60 (or one-fourth) are allocated according to these primarily subjective procedures.

There is some question with regard to the assertion that these ratings can be used by persons untrained in psychometrics. There are, of course, problems

inherent in additive rating systems in general. The assumption is made that ratings on criteria are additive. But what if, for example, the internal consistency reliability on an instrument were zero? In the ratings, it could still turn out relatively well provided the ratings on other criteria were good. The point is that certain aspects of instruments may be crucial, and an additive rating model makes no allowance for such.

To compare ESTE ratings with reviews in Buros's Mental Measurements Yearbooks, one of the highest and one of the lowest rated tests from ESTE were selected. It was found that ESTE's evaluations were not always consistent with Buros's evaluations.

There are no special personnel requirements or other administrative considerations implicit in the use of ESTE. The product is a paperback book which can be obtained from the:

Center for the Study of Evaluation
UCLA Graduate School of Education
Los Angeles, California 90024

The cost of the book is $5.00 and no other costs are involved in obtaining or using the product.

ESTE was released in 1970 by CSE prior to the completion of the field testing of the KIT. To date approximately 7,000 copies of the book have been sold by direct mailing. Dr. Seligman reports that although the test evaluations were not originally planned for separate dissemination, he believes that ESTE should continue because its audience is broader than that of the KIT, which focuses entirely on the principal. In the future, brochures will be sent to a broad population, and complimentary copies will be sent to chief state officers.

The entire Elementary School Evaluation KIT: Needs Assessment was published by Allyn and Bacon in January 1973.

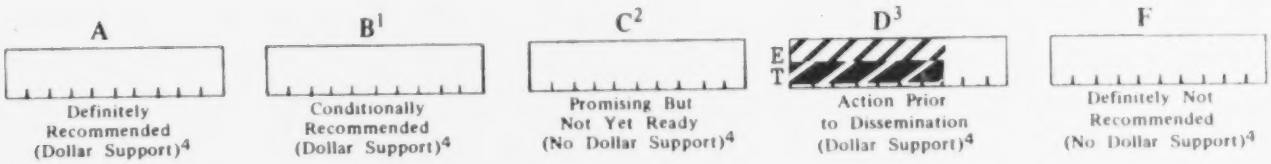
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP–AC*	*Code No.*
72	130	D-699-X9-P02

Perceptual Skills Curriculum
Robert Glaser and Jerome Rosner, Principal Investigators
Learning Reserach and Development Center (LRDC)
University of Pittsburgh



PANEL DISCUSSION

The early data appear favorable. It would seem that aiding development might be justified, since this would broaden the base for field trials beyond the middle class and a single inner-city area. This product could become an interesting prospect and allocation of funds for the purposes specified might speed its development to the point where it was ready for dissemination.

PANELIST COMMENTS

NOTATION Only 7 of 10 panelists present during final balloting.

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Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
130

Code No.
D-699-X9-P02

Perceptual Skills Curriculum

Principal Investigators: Robert Glaser and Jerome Rosner
Learning Research and Development Center
University of Pittsburgh
Pittsburgh, Pennsylvania 15213

The Perceptual Skills Curriculum is a developmental program whose major aim is to prevent learning disabilities from arising in children simply because the perceptual skills of those children have not been developed adequately. The curriculum assumes that certain perceptual skills are necessary to academic success; that they can be taught; that they can be arranged hierarchically and taught systematically in units with clearly defined behavioral objectives; and that, once taught, they will contribute to the academic growth of the child.

The curriculum covers four general areas: Visual-motor activities, Auditory-motor activities, General-motor activities, and Letters and Numerals (emphasizing the academic application of the other skills). Using criterion-referenced diagnostic tests, generally individually administered, the teacher first establishes the level of skill that each child has attained in each area. Then, to develop the child's skills from those levels on, the teacher leads each child through the activities appropriate to his level of development as they are outlined in the various activities manuals.

The curriculum consists of: a) Curriculum tests, b) A Visual-motor activities manual, c) An Auditory-motor activities manual, d) A General-motor activities manual, e) Visual-motor manipulative devices (including a Design Board, on which the child copies specified designs by placing rubber bands on pegs, and Printed Patterns, on which the child draws the required designs), f) Auditory-motor instructional cassette tapes, g) Letters and Numerals instructional cassette tapes, and h) Record-Keeping Forms.

The curriculum has been tested mainly on children in kindergarten and first grade; however, it is claimed that the General-motor tests and the lower level of the Visual-motor and Letters and Numerals tests can be used effectively with 3-year-olds, although the Auditory-motor tests are not recommended for children younger than 4 1/2. The materials would therefore also seem appropriate for use with individual children or even small groups of children receiving instruction outside the school. In addition, the materials will have some value in remedial work to correct the kinds of problems that the developmental program is attempting to prevent.

A series of studies was undertaken during the development and validation of the Perceptual Skills Curriculum. First, those perceptual skills that appear

to be directly related to the basic classroom tasks of reading and arithmetic at the primary-grade level had to be identified. Standardized perceptual tests (the Gesell Copy Forms, the Rutgers Drawing Test, the Word Repetition Test, and the Auditory Organization Test) were administered to approximately 300 kindergarten and first-grade pupils in urban and suburban Pittsburgh at the beginning and at the end of the academic year 1969-70; the scores on these tests were related to the population's scores on the Wide Range Achievement Test. Since these correlations were deemed significant, it was decided that the study should not only be replicated but also carried a step further: to identify the aspects of the skills most relevant to reading and arithmetic. To measure more refined and complex aspects of the skills than were identified in standardized tests, special tests were developed in Auditory-motor skills (AAT) and Visual-motor skills (VAT). (Work is still under way in General-motor skills.) The tests were given in 1970-71 to pupils in the Baldwin-Whitehall Public School District (Pennsylvania). A comparison of results on these tests with results on standardized tests (Language Arts, Word Reading, and Arithmetic subtests of the Stanford Achievement Test) showed positive correlations.

Next, the task of training pupils in the identified skills began. In one of three similar studies that are part of the validation study conducted for Visual-motor skills, individuals in Class A (14 preschool children in an urban Pittsburgh school that was participating in a Primary Education Project) received special training in the use of the Design Board; no one in Class B (15 preschool children from the same school) did. At the end of about 47 days (an average of about 13 days in pupil-training time), individuals in Class B were trained for approximately the same length of time as those in Class A. (Class A received no further intensive training.) At the beginning there was no statistically significant difference between the mean score for Class A on the Rutgers Drawing Test and that for Class B. Following the training of Class A (but not Class B), the mean score for Class A was higher than that for Class B. (In a possible score range of 0-8, Class A had a mean of about 5.5 and Class B of about 3.) After Class B was trained, a statistically significant difference between the two groups no longer existed. In four months, the Mean Equivalent Drawing Age (scores on the standardized Drawing Test) of the two classes had risen from less than 48 months to 58 months.

A study of similar design was done for Auditory-motor skills, as part of the validation. The results indicated that the experimental group receiving special training made much more progress in Auditory-motor skills than the untrained control group.

Another study indicated that a group of children trained in auditory skills reached the level of ability (or perhaps surpassed it) of an untrained group of children from the same inner-city neighborhood who were approximately a year older.

No study was done for General-motor skills; the developer, however, suggests that studies in the fields of physical education and physical therapy indicate that such skills are highly trainable.

No new studies were conducted as part of the project to determine whether training in perceptual skills would affect achievement in reading and arithmetic, but reference is made to other studies on that point.

Finally, the various aspects of the training program, the Perceptual Skills Curriculum itself, were validated in terms of their ability to work in the classroom--to show changes in the behavior of pupils going through the program. The assumption was that the pupils exposed to the training would advance along the hierarchy of skills and pass the appropriate criterion-referenced tests for the skills if the program were adequate and feasible. In Visual-motor skills, Auditory-motor skills, and General-motor skills, the mean performance on the criterion-referenced tests of 57 kindergarten children in the Baldwin-Whitehall district who began the program in September 1971, by January 1972, approximated or surpassed the beginning performance of 32 first-grade children who had also been tested that September.

The data appeared favorable enough to the panel to justify possibly aiding development in order to broaden the base for field trials beyond the middle class and a single inner-city area and thus bring what the panel considered an interesting prospect to the point where it was ready for dissemination.

The teacher using the curriculum should be able to include it in the normal classroom routine. However, because so much of the instruction is individual, the use of paraprofessional help is probably advisable. The teacher should be familiar with the various activities and tests before they are used with the children and should be ready to prepare materials (such as ditto copies of mazes) or collect materials (such as bottle caps, cubes, and blocks) to supplement the materials supplied in the curriculum. The classroom should be provided with one or more cassette tape recorders.

The developer reports that he has talked to various publishers about publishing the curriculum. One publisher estimated that to supply the complete set of materials in their original format to a school would cost about $700 a set. Very shortly, however, the developer expects to sign a contract with the Walker Educational Book Company (New York), which plans to publish the materials on May 1, 1973 in six volumes. The first volume will include (in permanent binding) the Introduction, Rationale, Validity Study, and Guidelines. The other volumes will be in ring binders to permit the materials in those volumes to be used as master copies that can be duplicated easily by the school. Volume II will include the Visual-motor tests and activities. (Two Design Boards in each of three configurations will also be supplied, but others can be purchased separately.) Volume III will include the Auditory-motor tests and activities; scripts for tapes will be included, but not the tapes themselves. Volume IV will include General-motor tests and activities. Volumes V and VI will include Letters and Numerals tests and activities. Presented in this form, the publisher estimates a price of $50 for all 6 volumes and 6 boards. A school need buy only one original set.

In discussing the ways in which funds for dissemination could be most profitably used, the developer pointed out that the company that intends to publish the curriculum is a small one with limited funds to spend on dissemination and that the plan for publishing the materials was devised to lower the cost of the curriculum and thus bring it within the financial scope of more schools. Therefore, funds for dissemination would be most advantageous in that they could be used to promote the product, to make the public aware of its existence. Furthermore, funds could be used to provide workshops and training in the use of

the curriculum. The only other way to provide such workshops, suggests the developer, is either to raise the price of the materials to cover the cost of the training (something those connected with the project are reluctant to do) or to keep the price of the materials low and charge for participation in the workshops (adding to the financial burden of the schools).

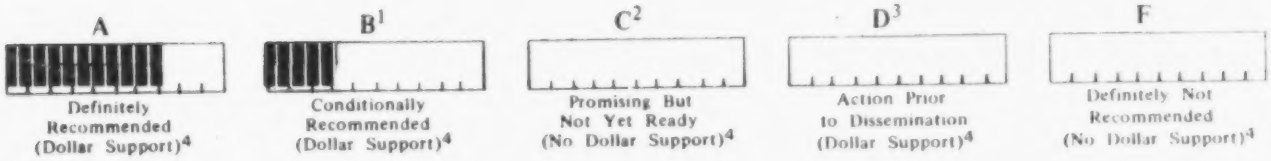
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP–AC*	*Code No.*
04	136	B-826-08-F03

A Sourcebook of Elementary Curricula Programs and Projects, ALERT
Samuel N. Henrie, Principal Investigator
Far West Laboratory for Educational Research and Development



PANEL DISCUSSION

The product should be put in wide circulation. Let people know about it to give it even greater visibility. Omission of the affective area is a serious lack.

PANELIST COMMENTS

By definition, calculated to provide side effects.

Limited dollars.

Not only a tool for decision-making and change, also a reference source.

NOTATION

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Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
136

Code No.
B-826-08-F03

A Sourcebook of Elementary Curricula Programs and Projects, ALERT

Principal Investigator: Samuel N. Henrie
Far West Regional Laboratory for Educational
Research and Development
1855 Folsom Street
San Francisco, California 94103

A Sourcebook of Elementary Curricula Programs and Projects is one of the products of ALERT (Alternatives for Learning Through Educational Research and Technology), an information system being developed by the Far West Regional Laboratory. This 493-page volume describes approximately 300 programs in elementary education. Included are the following categories: aesthetics and art, affective education/personal development, career education, drug education, early childhood education, English/language arts, environmental education and ecology, ethnic education, intergroup relations, foreign language and bilingual/bicultural education, health, sex and family life, physical education, mathematics, reading, science, social studies, general systems, and resources. There is a cross-referencing to permit educators to locate either in its table of contents or index appropriate programs as several can be listed in more than one category, for example, in both ecology and science. Each area is further subdivided in order to provide information about four kinds of educational development: i) curricula, ii) models, iii) training, and iv) resources.

The sections for each program include a general description which, while indicating its major aspects, also includes not only its strong points but also limitations and in some cases, major criticisms. Brief comments are given under the following headings: target audience, subject area, content emphasis, sample topics, major goals for students, project goals, suggested use, length of use, unit sequencing, instructional methods, student's role, teacher's role and training, student testing, late-entering students, special equipment and facilities, program evaluation, availability, present status, cost of materials, equipment, and services; current information about status, distributor, and developer. All of these are brief enough for educators to gain a maximum amount of information in a minimum amount of time.

The purpose of the Sourcebook is to provide information to decision-makers in schools about new available alternatives in curricula, training programs, models for school organization, and instruction methods, giving priority to those developed through federal grants and through research and development institutions. Programs and projects selected to be included in the Sourcebook are limited to 1) those which serve the needs of preschool and elementary

level children; 2) those available in some form within one year of release of information; 3) products which are "well-developed," that is, have adequate funding, competent development groups, and sufficient scope and quality to be of use on a national scale.

Specific priorities for inclusion in the Sourcebook are:

First Priorities: programs produced by rigorous research and development methods; i.e., establishment of performance objectives, field testing of the parts and complete program, revision on the basis of test results, and insistence upon adequate performance before release for publication.

Second Priorities: validated new nonresearch and development programs that have not been rigorously evaluated but which show internal evidence of good quality and represent important alternatives to traditional practice.

Third Priorities: programs with innovative features or other new programs that have not been rigorously evaluated but which show internal evidence of good quality and represent important alternatives to traditional practice.

Details of these priorities and a listing of programs with indications of priorities are given in the Technical Report on the Selection of Entries for the ALERT Information Product, A Sourcebook of Elementary Curricula, Programs, and Projects.

Initially the descriptions of programs were printed on punched cards and separate pamphlets, but the first main field tests indicated that a catalog format would be more economical and feasible.

In the initial version, which consisted of punched cards and separate pamphlets, approximately 100 test sites were selected with 3-8 individuals completing questionnaires before and after the installation of ALERT at each site. Two surveys of site coordinators were carried out during the year. The purposes of the field tests were to 1) determine whether the product could meet its performance objectives and 2) learn how ALERT is used by school personnel.

These data were used in a formative context in order to provide clues for the improvement of the information system and its products. A result of this first field test was to change the information given on punch cards and pamphlets to the present Sourcebook version in catalog format. A second field test for 1971-72 was carried out because certain critical questions were not conclusively answered within the first year findings (for example, one of the chief objectives of the ALERT system has been to facilitate adoption/rejection decisions and data in this regard were "favorable but inconclusive"). Furthermore, this second year of testing might reveal the capacity of ALERT to hold the interest of users over time and to keep them continuously abreast of new developments.

The picture emerging from the second field test is that ALERT is a useful and desirable information tool, an important part of an information/decision process, but not in itself sufficient to facilitate that complete process. It is

valuable in that it provides a general reference to what is new in the elementary curriculum, a source for initial search, a source of information about specific programs, a tool for screening programs with particular characteristics, and a teacher-training text. Teachers need direct experience in looking at materials, talking to teachers, and seeing the programs in operation. For ALERT to be a complete decision-making system would require that sample materials be made available and site visitations be possible so that potential adopters could have some direct, concrete experience. In the quality control aspect of the field testing, minor inaccuracies were discovered, but they were never enough to cause a reader to gain a distorted picture of the program or products.

Major details of the field testing have been published in Report On the Second Year of the Main Field Test of the ALERT Information System, which is a supplement to the report on the initial field testing. The technical reports have been extremely candid in revealing not only the types of field testing, but also those aspects of the program which did not initially fulfill expectations. The emphasis on formative evaluation and subsequent changes made as a result of this are carefully described.

There are no specific personnel requirements for this product except that administrators and teachers concerned with elementary education would be in positions where this information might prove extremely profitable in a survey of current programs preparatory to making educational decisions.

The Sourcebook is used to determine what is available in elementary education. If decisions are to be made, materials for specific programs are necessary. Possibly a site visit for direct experience with those using the materials and a determination of the specific conditions under which the program would be used most effectively would be needed. The Sourcebook is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock Number 1780-1072, at a cost of $5.75.

The Sourcebook is being sent free of charge to those people who have helped in its development, provided information, or encouraged the project. Copies are also being made available to selected key educators. Continuation of present dissemination efforts with some publication of information as to the availability and description of the Sourcebook are planned.

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PANEL REVIEW OF PRODUCTS
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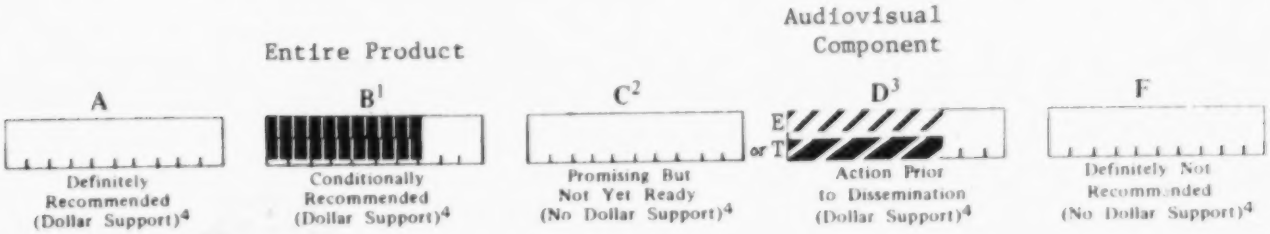
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP-AC*	*Code No.*
05	142	B-895-08-F09

Educational Information Consultant
Wayne Rosenoff, Principal Investigator
Far West Laboratory for Educational Research and Development



PANEL DISCUSSION

This is a well done package in an area that needs help; the cost is low. Training in the use of ERIC and other information resources is a need that is well met through a product such as this, especially the book component. The audiovisual materials may need to be shed, but if they are retained, independent evaluation or field trials are called for.

PANELIST COMMENTS

Goals well defined.

Evaluative data from users not exposed to the course would be useful. Not completely for independent use.

Need validity data showing that, after the course is taken, the consultant gives better service as judged by the client.

Wonder about market -- is audience limited?

How does this product relate to competing products in training in the use of ERIC such as the CASEA computer retrieval system?

For information seekers rather than supervisors.

NOTATION Only 7 of 10 panelists present during final balloting -- an earlier vote was 9 x B and 1 x C if E is done.

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Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
142

Code No.
B-895-08-F09

Educational Information Consultant

Principal Investigator: Wayne Rosenoff
Far West Laboratory for Educational Research
and Development
1855 Folsom Street
San Francisco, California 94705

The primary purpose of this instructional product is to train Educational Information Consultants (EIC's) so that they can receive, process, and fulfill client requests for information related to specific curricular, instructional, and administrative problems. The EIC provides a link between the client and those information networks (for example, ERIC) which now exist to stockpile educational research and development information. The need for such a course is based on the assumption that the knowledge is more valuable when it can be effectively communicated between those responsible for its generation and those responsible for its utilization.

The primary form of the instructional system is a 30-hour (ten 3-hour sessions) training course entitled, "The Education Information Consultant: Skills in Disseminating Educational Information." The course is organized in 5 modules ranging in length from 4.5 to 9 instructional hours. Each module focuses on one of the 5 major processes of the EIC role: Negotiation, Retrieval, Transformation, Communication, and Evaluation.

Each instructional module begins with a clear statement of objectives. For example, those stated for the "Retrieval" module include defining and explaining the significance of the retrieval process; developing an efficient and comprehensive search plan; and knowing how to conduct searches in a variety of educational resource systems, including the ERIC system.

The instructional activities were originally designed to fit the 15-session pattern of a semester schedule. They have been compressed, however, into 10 sessions, a pattern which is compatible with a quarter-term schedule. The developers plan to make the course available in 3 other delivery forms:

1) a 45-hour course for university use
2) a 10-day self-contained institute
3) a self-administered learning team form for 3 or more trainees

The initial training materials were developed following a comprehensive survey of the literature and a 2-day conference in which working papers and models were presented to a panel of consultants. Representatives from ERIC and other educational centers attended the conference. Three tests of the instructional materials have been made:

1) a preliminary field test (PFT) of the instructional system at the University of California, Berkeley,

2) a main field test (MFT) at San Francisco State College, and

3) a preliminary operational field test (POFT) at the San Mateo County Educational Resources Center.

A total of approximately 40 persons participated in the field tests which were conducted in 1971. They represented experience in a variety of occupations: librarian, information analyst, director of library science program, assistant to school superintendent, teacher, research chemist, and graduate student in education. During the field tests both cognitive and affective data were collected.

The cognitive evaluation was designed to determine the extent to which the knowledge and skills required to perform the EIC role were acquired following instruction. For the preliminary field test a combination objective-subjective test was administered as a diagnostic exercise at the beginning and end of the training sessions. When pre- vs. post-comparisons were made using 2 raters for both pre- and post-scoring, significant results (i.e., greater mean scores) were noted. Two modifications of the system following the PFT were the elimination of certain oral presentations and more flexibility in scheduling.

The MFT involved 18 graduate students in education at San Francisco State College. For the MFT, the pre- and post-test consisted of in-house multiple-choice, matching, completion, and short-answer subjective items. Again highly significant mean score differences indicating improvement in performance were found. In addition to the overall evaluation, separate modular tests were used on 4 of the 5 modules at each of the first 3 field trials.

The affective evaluation consisted of administering at the end of each module questionnaires containing affective scales. This procedure was used in both the PFT and MFT. The scales and criteria were developed by the project staff. For the PFT, the set criterion was achieved on 75% of the items and for the MFT the criterion was achieved on 80% of the items.

There were complaints that the course schedule was too tight. In fact, the field tests compressed a course designed for 45 hours into 30 class hours. Instructors felt that the student activity built into the course was a positive factor for the program.

The preliminary operational field test (POFT) was conducted at the San Mateo County Education Resources Center in Spring 1971 to test the feasibility of the system as a transportable package. Nine trainees already functioning at various levels in the EIC role were involved. The primary purpose of this field test was to determine if the instructor materials and guidelines were sufficiently developed for independent use. Tests similar to those described above were used and the final project report contains several quotes from participants attesting to the value of the course. Those trainees with considerable experience reported "significant" gains in learning in the Negotiation and Communication modules. Few trainees showed a gain in the Retrieval module since most were quite familiar with ERIC.

A major conclusion following the POFT was that the present form of the EIC course is not completely adequate for independent use. It was felt that the instructor needs some training prior to teaching the course.

If the course is offered in a university, an instructor with some background in education or educational research would be desirable. No special facilities are required to implement the course and many individuals can probably master much of it via self study with no formal instruction. The developers claim the course can be taught by a teacher using the "Instructors' Manual." This manual has detailed lesson-by-lesson guides.

There are a variety of materials related to the course. A looseleaf notebook containing job aids, readings, learning exercises, guidelines, and other accessories developed for student use costs $15. Instructor materials consist of the student notebook accompanied by a schedule and detailed notes on the format and content of each 3-hour instructional session (cost about $10). Although not specifically stated, an adequate resource center (library) is probably an asset in developing the skills and goals outlined for the course.

Audiovisual materials now built into the instructional time include 2 filmstrips with tapes, an audio-tape, and a slide-tape set. The slide-tape set describes the ERIC DIALOG system. Copies of these materials are available in the Far West Laboratory and would be provided in the transportable package (no cost data available). Two films--one, 12 minutes and the other, 22 minutes in length--are optional. Neither is available from the Far West Laboratory, but both can be rented, at nominal cost, from film distributors who give nationwide service.

While the EIC process could be applied to many different educational audiences, the content and examples in the course seem primarily directed to EIC's who will work with teachers and curriculum supervisors concerned with subject-matter information at an elementary and secondary level. The degree to which the EIC can serve effectively other segments of the educational community (e.g., at the postsecondary level and/or in administrative-policy level) will depend on the extent to which the skills developed through the course examples are generalizable.

Both the negotiation and communication steps would probably be facilitated if the EIC can function in the client's professional language and terminology.

The EIC product focuses on published materials and literature. This may lack the timeliness needed in information for policy-level decisions. There could be a unit on extracting and transforming data available only in undigested form, e.g., HEGIS data and state-level school census data. The negotiation, transformation, and communication skills of the EIC process would be applicable to such undigested data but the retrieval process might be quite different.

The demand for professional EIC's may be somewhat lacking and employment restricted to places like the ETS ERIC Center, large city school systems, educational R and D Centers, State Departments of Education, and the San Mateo County Education Resources Center. However, the product should not be evaluated solely on the basis of career preparation, but rather viewed as a short course that may improve one's ability to serve as a resource person.

For example, a university library could have a staff member take the short EIC course and thereby improve its service to users.

The product is presently being disseminated by the Far West Laboratory. Beginning next fall (1973), the University of California will offer a correspondence course based on a modified version of the program. The course was demonstrated at the 1972 AERA convention over a 5-day period. Approximately 125 people (not including AERA) have taken the course. According to the Final Report a proposal was submitted to the USOE for additional funding for evaluation and dissemination. The Final Report is available from ERIC: ED-055-610.

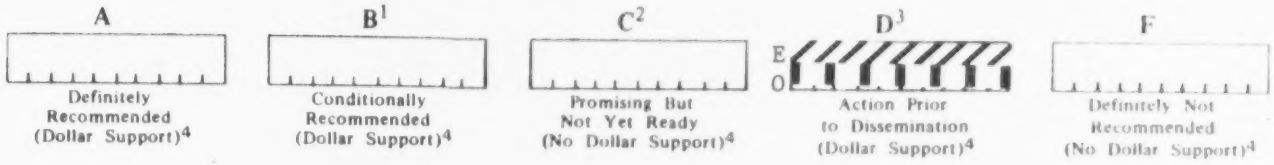
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP–AC*	*Code No*
28	144	C-896-98-F11

Determining Instructional Purposes
Joyce P. Gall and Charles Lynn Jenks, Principal Investigators
Far West Laboratory for Educational Research and Development



PANEL DISCUSSION

Not only should an absolute evaluation be carried out, but a comparative evaluation with competing products, notably PROP-AC-96 (Book No. 01) - Elementary School Evaluation Kit: Needs Assessment - and PROP-AC-173 (Book No. 14) - Evaluation Workshop I: An Orientation, should be made. The product has the notable and rare feature of showing means and confidence limits as well as gains and probable errors. It appears somewhat more manageable than PROP-AC-96. The evaluation of the product was good, but the criteria used could be more rigorously defined via independent comparative evaluation.

PANELIST COMMENTS

What is the educational significance of the standards used as performance criteria?

Skill needs better external evidence of significant gains.

NOTATION

1 - Condition to be satisfied is indicated in Panel Discussion.
2 - Resubmission in 1974 is suggested.
3 - E = Independent Evaluation or Independent Review of Available Data, T = Field Trials, M = More Development, O = Other Action as Specified.
4 - "Dollar Support" refers to Dissemination Dollars.

Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
144

Code No.
C-896-98-F11

Determining Instructional Purposes

Principal Investigators: Joyce P. Gall and Charles Lynn Jenks
Far West Laboratory for Educational
Research and Development
1855 Folsom Street
San Francisco, California 94103

Determining Instructional Purposes is a training package containing a Coordinator's Handbook and training units on 1) Setting Goals, 2) Analyzing Problems, and 3) Deriving Objectives.

The purpose of the training units is to provide coverage of those skills that are basic to instructional planning and management. Each unit represents one step in a comprehensive process for translating information about instructional problems, goals, and constraints into systematic plans for the instructional program and consists of 1) reading materials, 2) simulated input, and 3) training exercises. The units use several methods, such as teamwork and feedback. The objectives for each unit are as follows: 1) Goal Setting (10-20 hours, 3 modules) - to guide instructional planners in determining what a district's goals are and what they mean, 2) Analyzing Problems (17-18 hours, 7 modules) - to enable instructional planners to set priorities for action on district problems, and 3) Deriving Curricular Objectives (8 hours, 4 modules) - to enable planners to translate their goals into appropriate objectives and to develop mechanisms for assessing those objectives.

Although the units fall into logical sequence, they have been designed so that they may be taken in any sequence or each one can be used alone. When the units become operational, they will not require the presence of the developers. Each unit contains all materials and instructions necessary for a coordinator to conduct a training course and is appropriate for a variety of training schedules and settings.

The units are intended for 1) school planners at elementary and secondary levels, 2) local school administrators, and 3) teachers. The "entry level" of trainees need not be high because the skills covered are relevant to school people having a wide range of duties.

The field test for Setting Goals was conducted at 5 sites with 74 participants between October 1971 and February 1972. Two Preliminary Performance Tests and 3 Definitive Performance Tests measuring 6 cognitive and 4 skill objectives of the training unit were given. All participants

completed an individual written 2-3 hour pretest which was later readministered as a post-test. Trainees also completed a questionnaire on Affective Objectives. Trainees rated on a 7-point scale the degree to which the skills and knowledge gained from the training unit would be useful to their work. Results were as follows: 1) All the cognitive objectives specified for the introduction were achieved. 2) Cognitive and skill objectives specified for Module Two were met. 3) Cognitive objectives and product specifications for Modules One and Three were achieved, but the results were not positive for skill objectives. The performance effectiveness for these Modules has not been demonstrated. 4) In terms of affective objectives and product specifications applied to the entire unit, the results were positive. With the exception of skill objectives for Modules One and Three, the Goal Setting unit was found to be effective. Several alternatives are offered for skill objectives in Modules One and Three. The standard of performance was typically the midpoint of the possible score range for each objective. For an objective to be considered achieved, the following conditions were to be met: 1) the pretest group mean was below standard; 2) the post-test group mean was above standard; 3) the post-test group mean was significantly greater than the pretest group mean. Once release is approved, additional performance testing can be arranged.

Three Preliminary Performance Tests of Problem Analysis were conducted between March and July 1971 with 44 trainees at 4 sites. An individual written pre- or post-test was administered before and after training. A split sample pre-post design was used and the evaluation of results was based on the objective that performance on the post-test would be significantly higher than on the pretest in terms either of the percentage of correct responses on items which could be judged correct or incorrect or the quality of the responses in terms of criteria presented in the Guidelines as judged by independently trained raters who were unaware of the field test design. After training, trainees also completed a knowledge test to evaluate their achievement of cognitive objectives and a questionnaire to assess their affective reactions to training. The performance effectiveness of the Introduction, Modules One-Four and Six-Seven was demonstrated in the performance field test. Module Five did not prove to be effective during performance field testing. Since Module Five is not essential to the entire unit, it was eliminated. Generally, performance field test results showed that product users acquire basic skills and knowledge related to the problem analysis process, show readiness to apply the process, and respond favorably to the product.

The main field test for Deriving Objectives was conducted from October 1971 to March 1972 at 5 sites. The sample ranged from 12 to 168 participants. One version of the test focused on foreign language curricula and one was a standard version. Both were administered to graduate classes in education, a professional organization workshop, and to foreign language teachers in a school district. A pretest and post-test were used to determine whether training objectives were achieved. All participants took the same pre- and post-tests. The training objectives were broken down into 25 discrete test variables. Achievement of statistical significance was deemphasized in favor of monitoring the practical significance of achieving a noticeable pre-post test gain on each variable. Data were analyzed in a "goal-free" manner for assessment of the direct effects of the training. Affective data were gathered to determine the acceptance value of the unit. Participants in the foreign language version gave slightly higher affective ratings to the unit, possibly because of a common participant interest. Trainees achieved statistically

significant post-test gains on 18 of 25 variables tested. The unit was considered successful in developing knowledge, comprehension, and low-proficiency skill for performing tasks and functions involved in deriving curricular objectives. Analysis of affective data revealed that unit characteristics described by 128 of 142 items had met or surpassed the standard of acceptability.

Further revisions of the unit will focus on identifying more specific skills to be achieved. It should be noted that the entire training package will be revised before it becomes operational on a large scale.

A coordinator who assumes responsibility for the course is required. He needs no special training other than what is outlined in the Coordinator's Handbook. A group of people involved in local school planning at the elementary and secondary levels should participate in the course. Since this is an intensive course, a small group may be preferred. However, the group should be large enough to accommodate teamwork situations.

The cost is minimal. Each unit is self-contained and costs approximately $8.00. A district may buy 1, 2, or 3 units in the package and reproduce the materials or buy enough units for each participant. It is recommended by the developer that the products not be copyrighted and released through a commercial publisher because this procedure would increase the price substantially ($25-$30 per unit or $75-$90 for the three). Further, the product would not be attractive to a publishing house because of the thin potential market and the cost of reaching it.

No special facilities are required. Any sufficiently large room would be appropriate.

The coordinator and participants must schedule a block of time for the course in conjunction with district school boards.

The package is now used in a few districts and about 40-50 requests for the units have been received. The materials are disseminated to users below cost in addition to handling expenses.

Promotional literature was sent to school districts around the country in February 1973. It is also recommended by the developer that consideration be given to securing funds to cover production and free distribution of about 3,000 units to selected sites where they will be used and that the units be placed in the public domain for distribution at a minimal cost through the Superintendent of Documents.

PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP-AC*	*Code No.*
06	145	B-891-09-F12

Early Childhood Information Unit
Stanley Chow, Principal Investigator
Far West Laboratory for Educational Research and Development

A	B[1]	C[2]	D[3]	F
	Optional $ No 3 *			
Definitely Recommended (Dollar Support)[4]	Conditionally Recommended (Dollar Support)[4]	Promising But Not Yet Ready (No Dollar Support)[4]	Action Prior to Dissemination (Dollar Support)[4]	Definitely Not Recommended (No Dollar Support)[4]

*Optional $ for distribution where needed

PANEL DISCUSSION

This is a useful handbook, it is informative and looks quite good. It could be given a boost with modest funding.

PANELIST COMMENTS

NOTATION

3 panelists abstained from voting.

1 - Condition to be satisfied is indicated in Panel Discussion.
2 - Resubmission in 1974 is suggested.
3 - E = Independent Evaluation or Independent Review of Available Data, T = Field Trials, M = More Development, O = Other Action as Specified.
4 - "Dollar Support" refers to Dissemination Dollars.

Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
145

Code No.
B-891-09-F12

Early Childhood Information Unit

Principal Investigator: Stanley Chow
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1855 Folsom Street
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The Early Childhood Information Unit is designed for teachers, administrators, parents, and community people who are responsible for reviewing, selecting, and implementing early childhood programs. Its purpose is to inform these decision-makers about educational programs available for young children from the preschool years through third grade. It does not recommend any one program because it is felt that decisions regarding the adoption and/or adaptation of programs ought to be made by the local school community in the light of local constraints, conditions, and resources. It is instead the purpose of the unit to provide knowledge useful to those involved in selecting programs for young children.

The Unit's printed materials include an introductory paper and directions on how to use the unit, a paper on trends in early childhood education, detailed reports of 8 major early childhood programs, less detailed summaries of 7 other programs, and a bibliography. Other materials include a set of 9 filmstrips and 4 accompanying cassette tapes. The filmstrips include one intended primarily for parents which explains major trends in early childhood education. The 8 major programs are further described in the other filmstrips.

The reports for the 8 major programs are each approximately 20-35 pages in length and contain detailed information on the following topics: goals and objectives, content and materials, classroom activities, parent involvement, professional and paraprofessional training, administrative requirements and costs, program development and evaluation, and the history of the program.

The other 7 program summaries are approximately 3-6 pages in length and cover the same general topics as those listed for the major programs. These 7 programs were not considered suitable for more detailed treatment because some are still in the early stages of development, one is a model for parent-controlled schools rather than a classroom program, and another is a model for training parents.

The programs given detailed treatment include Behavior Analysis Model, Bank Street Model, Cognitive Curriculum, Demonstration and Research Center for

Early Education (DARCEE), Education Development Center: Open Education Model, Responsive Model, Tuscon Early Education Model (TEEM), and the Engelmann-Becker Model.

The programs about which information is presented in summary form are: Independent Learning Model, Florida Parent Education, East Harlem Block Schools, Primary Education Project, Early Childhood Learning System, Appalachia Preschool Education Program, and Ameliorative Program.

Unit developers hope that users will be able to evaluate rationally information about alternative programs and that they will pay attention to information about the programs, respond to it, and value the unit. Specifically, users of the Unit will know the major characteristics of programs they review, will understand information about them, will be able to identify those that meet their needs, and will be able to make judgments about them.

The evaluation of the Unit included two major field-test stages: a preliminary field test (PFT) which was carried out as a formative evaluation and as a test of product feasibility and a main field test (MFT) which was a test of the Unit's effectiveness in meeting stated objectives.

For the PFT, a sample of 15 potential users participated in a full-day review of a preliminary form of the Unit which included 3 program reports and 2 abstracts. The subjects considered the Unit to be as valuable as primary or direct sources of information, e.g., site visits, pilot projects, and more valuable than secondary or indirect sources. They felt the Unit was valuable as an information resource, a training tool, and a decision-making aid.

The Main Field Test (MFT) took part in 2 phases, one in September 1970 and one in September 1971.

The MFT Phase I sample consisted of 23 administrators and other professionals, 13 parents, and 30 teachers and student teachers. There were 31 subjects in California, 13 in Nevada, and 22 in Utah. The three groups filled in 6 questionnaires covering each of the Unit components and another questionnaire that asked their opinions of the materials.

Minimum and optimum standards were set for each objective for each group for each Unit component. In general, the data show that for the knowledge objective the standards were easily met. Parents did not perform as well as teachers or administrators. The developers found this reasonable, since they assume that professionals would be more knowledgeable about the field. With regard to comprehension, again parents did not do as well as the other two groups, while for the value objective, it was found that the Unit generally was considered valuable and that administrators tended to give the highest ratings.

Phase II of the MFT had as its sample 31 subjects who reviewed the Unit in 3 separate groups. Group I consisted of 15 San Francisco Bay Area parents, teachers, and administrators who are involved in early childhood education. Group II contained 9 people, teachers, parents, principals, and a curriculum coordinator, all from a single suburban school district in the Bay Area. This second group was considered a homogeneous group because it was felt that they

could represent a "real" committee organized to review early childhood programs and also because they were from the same district. Group III consisted of 1 administrator, 3 teachers, and 3 parents selected from the Laboratory's contact file. It was unlikely that they would be drawn together as a curriculum committee so they were known as the heterogeneous group.

Group I reviewed audiovisual elements. They were pretested on their familiarity with programs included in the Unit and then proceeded to review the Introductory Slidetape and 5 program briefings. Questionnaires and knowledge tests were administered as post-tests. Results of cross tabulations indicate that the briefings helped the subjects to learn the characteristics of those programs with which they had been unfamiliar.

Groups II and III were pretested and were then instructed to review the Introductory Slidetape and all program briefings. After their review, they were instructed to select 1 or 2 programs that would meet their needs. Group II (called homogeneous) easily reached a unanimous decision. Eight of 9 subjects in Group II indicated that the Unit provided enough information to make a good decision.

Group III did not reach a decision, but the developers felt that the fact that the group was heterogeneous and had no common mission could help account for this failure.

Each program briefing was rated by the respondents on a 7-point scale, with 7 indicating high quality, in terms of several characteristics, e.g., interest, usefulness, sufficiency of information, ease of use, and clarity. The results of the evaluation indicate that two programs, Tuscon and Cognitive Curriculum, were considered good in all categories, while for the Introductory Briefing, DARCEE, and EDC, a number of value categories were marked "fail." Revisions were made according to these reactions.

In Group II's reactions to the complete Unit, all characteristics except for sufficiency of information were considered better than adequate, while Group III felt the Unit was interesting and useful but did not rate it high in other categories.

An Operational Field Test was conducted in December 1971, using a sample of 22 persons, 3 administrators, 6 curriculum specialists, 5 teachers, and 8 parents, in four western states who were asked to review all materials. They were then organized into review committees charged with recommending a course of action. Questionnaires were filled out by all participants.

Data obtained include: demographic data, results on tests of knowledge and information objectives, results on tests of application and decision objectives, results on tests of value objectives, and results on tests of cost-benefit-analysis objectives. A typical exercise, such as one applicable to the application and decision objective, asked that subjects first list 5 important problem areas encountered when considering programs for implementation and then indicate 1 or 2 Unit programs that might solve the problem. Thirteen (59%) of the 22 subjects indicated that the Unit's programs would solve at least 3 of the 5 problem areas listed. Five (23%) did not respond. From these results, the developers felt that the subjects were able to apply Unit information.

On the basis of the various tryouts, the program developers felt that their unit helped fulfill a need for making concerned persons aware of what is available in early childhood programs.

The Unit can be used by either a single person or a group of persons, although it is intended for use with groups of administrators, teachers, parents, or any combinations of these. No special training is required for the group leader but he should become familiar with the materials before presenting the Unit to others.

The printed materials available consist of 5 booklets, Introduction and Directions, Bibliography, Review of Trends in Early Childhood Education, and the Detailed Summaries of the 7 other programs. Other materials include 9 filmstrips, i.e., An Introductory Filmstrip intended primarily for parents and 8 other filmstrips that deal with the 8 major programs covered in the Unit. Each was photographed in a classroom using the model recommended by the developer.

All materials are required for full understanding of the Unit which can be purchased for approximately $90.00, although costs and prices are not considered fixed. The Unit may also be available in the future on a rental or lease basis. This purchase is a one-time cost and, since a trained and experienced educator can learn to present it, no major changes in staff will be necessary.

Presenting the Unit requires a filmstrip projector and a cassette tape player. Most school districts are likely to have these available; otherwise rental costs will be dependent on the locale.

It is suggested that presentation of this Unit be done in at least two sessions. If a presentation is to be made to a parent group only one session may be needed if the leader feels that all 8 filmstrips need not be shown. Presentations may be made at school staff meetings, district staff meetings, PTA meetings, or inservice meetings.

The Early Childhood Information Unit will soon be in the hands of Educational Products Information Exchange (EPIE), a nonprofit educational concern, which will be the sole distributor. No specific information about their dissemination strategy is available at this time.

Far West Laboratory personnel will still be available as information sources and in consultative capacities.

PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP-AC*	*Code No.*
08	147	B-823-65-F14

American Government Information Unit
C. L. Hutchins, Principal Investigator
Far West Laboratory for Educational Research and Development

A	B[1]	C[2]	D[3]	F
■				
Definitely Recommended (Dollar Support)[4]	Conditionally Recommended (Dollar Support)[4]	Promising But Not Yet Ready (No Dollar Support)[4]	Action Prior to Dissemination (Dollar Support)[4]	Definitely Not Recommended (No Dollar Support)[4]

PANEL DISCUSSION

This is a useful kind of product and will not cost much to disseminate. It describes kinds of programs that should be brought to the attention of educators.

PANELIST COMMENTS

Very urgent present need, at least in principle.

Notably original scanning guides and layout.

Information on this product should be disseminated, but direct funding should be limited.

NOTATION

Only 9 of 10 panelists present during final balloting.

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2 - Resubmission in 1974 is suggested.
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Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
147

Code No.
B-823-65-F14

The American Government Information Unit

Principal Investigator: C. L. Hutchins
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The American Government Information Unit is a paperbound volume of information about 9 recently developed secondary school American Government programs compiled to facilitate comparisons of the features of the various products. The programs included met 7 criteria: the materials were appropriate for American Government classes; they could be used for a semester or more of study; they were designed for students in grades 9-12; student materials had been developed; teachers' guides were also available; the materials had been field tested in high school classes and revised on the basis of test results; and the materials were available for purchase in 1971. All of them involve some degree of "inquiry" and "discovery" and the skills and processes used by social scientists. The 9 products selected and reviewed are:

1. Utah State University Social Studies Project (A Curriculum Focused on Thinking Reflectively About Public Issues)
2. High School Curriculum Center in Government Project (American Political Behavior course)
3. Sociological Resources for the Social Studies (Episodes in Social Inquiry Series)
4. The Harvard Social Studies Project (AEP Public Issues Series)
5. Holt Social Studies Curriculum (Comparative Political Systems course)
6. Lincoln Filene Center Secondary Social Studies Program
7. Law in American Society Foundation (Justice in Urban America series)
8. Educational Research Council Social Science Program (ERCSSP): Concepts and Inquiry (The Price of Freedom course)
9. The Amherst Project.

A review of the programs begins by using a screening aid which enables the user to select sets of desirable features and to eliminate the programs which do not have those features. Examples are: length of use, cost per student per year, and student ability level. The number of programs to be reviewed in depth can be reduced still further by using a one-page foldout matrix in which various dimensions of the products are compared; e.g., instructional strategy, sample topics, and teacher-training requirements. The second section contains brief, one-page descriptions of the products. The third section contains

detailed, approximately 20-page analyses on the following aspects of each product: 1. Goals and Objectives, 2. Contents and Materials, 3. Classroom Strategies, 4. Student and Teacher Prerequisites, 5. Implementation: Requirements and Costs, 6. Program Development and Evaluation, and 7. Project History.

A preliminary field test in February 1969 was carried out in the Laboratory using 19 San Francisco Bay area secondary school teachers and administrators. After further development, the main field test was conducted using a sample of 48 respondents from 9 school districts. The results showed that the Information Unit was successful in achieving its objectives and respondents were able to make acceptable decisions, but there were some criticisms of format. The developers then decided to combine a retesting of the objectives with the final operational testing of the product. This was done in the spring of 1970 (Combined Main/ Operational Field Test). Two groups were used--one group reviewed the unit with laboratory supervision and direction; the other used it independently.

The following results were obtained:

a) Average ratings by subjects placed the product at 5.0 or higher (toward the positive end) of 7-point scales of "useful" and "easy to use."

b) Given a list of possible resources for curriculum information, subjects indicated that they preferred the product to all other comparable secondary sources (hiring consultants, professional meetings or conventions, and journals) and almost equivalent to primary sources (workshops using new American Government curriculum materials, site visits to innovative projects, and conversations with involved professionals whose judgments they valued).

c) Subjects perceived that the reward for using the product in terms of usefulness, personal benefit, and enjoyment (an average of 5.61 out of 7 over three reward scales) justified the time and cost involved (an average of 3.62 out of 7 over three cost scales).

More detailed information about the evaluation carried out by the developer may be found in the "Final Report on the American Government Information Unit," by N. C. Adelson, S. G. Crosby, and L. A. Sikorski, Far West Laboratory for Educational Research and Development, Berkeley, California, January 1971. No independent evaluation has been done.

One copy of the American Government Information Unit is needed per school. The cost is $7.95 per copy, available from Technicon Educational Systems.

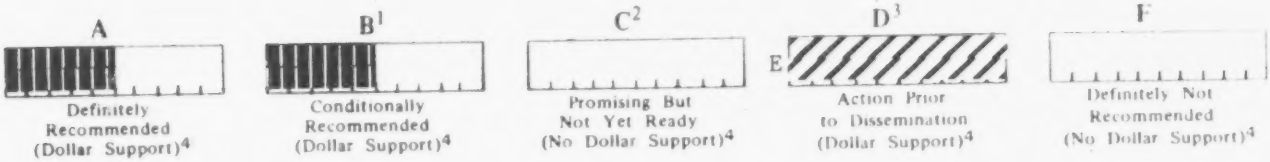
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP AC*	*Code No.*
78	163	D-323-99-Z$_p$01

An Intensive Training Curriculum for the Education of Young Educable Mentally Retarded Children
Sheila Ross, Principal Investigator
Palo Alto Medical Research Foundation



PANEL DISCUSSION

If the preliminary findings of large gains stand up, the product would appear to be very promising. Field testing or an independent evaluation should be encouraged to augment the rather skimpy data. Tests of significance of the reported gains are needed.

PANELIST COMMENTS

Extend the group slowly and double-check results. Not yet sure enough for wholesale dissemination.

Good side effects -- excellent results.

NOTATION

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Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
163

Code No.
D-323-99-Z 01
p

An Intensive Training Curriculum for the Education of Young Educable Mentally Retarded Children

Principal Investigator: Sheila Ross
Palo Alto Medical Research Foundation
860 Bryant Street
Palo Alto, California 94301

This product is "an intensive training curriculum for the education of young mentally retarded children." The curriculum includes: basic academic skills (reading, vocabulary, verbal expression, arithmetic); general learning skills (listening and following directions, planning, problem solving); social behavior (appropriate verbal and nonverbal behavior in commonly occurring situations involving interaction with others); gross and fine motor skills (physical education, fine motor skills); fine arts (painting, music); and independence training (seatwork, homework).

The curriculum is based on mediation theory and social learning theory and adapts the research findings and principles from these theories to the special needs and learning difficulties of EMR children. The central goal is the transmission of mediational skills to enable the children to learn to generate, code, and store verbal equivalents of environmental events and use these symbolic representations to direct subsequent behavior effectively. Extensive use is made of modeling procedures, the basic assumption being that intentional training (direct instruction by the teacher) combined with the systematic use of modeling procedures results in more effective performance than intentional training alone.

The curriculum consists of three levels: one preschool year, a first primary year, and a second primary year. Each level has completely developed detailed lessons for all subject areas plus the nonperishable objects needed (excluding readily available supplies such as clay). A class using the curriculum would have 1/3 of the children working with the teacher, 1/3 with an assistant, and 1/3 by themselves during a given 20-minute period. Relative homogeneity within groups permits each group to proceed through the lessons at its own rate; flexibility of grouping permits a child in one group to move to another group if his progress warrants it.

Other features include the use of sixth graders (high status models) as aides in various activities, and an emphasis on positive individual reinforcement (tangible and symbolic rewards). In addition, positive reward value is attached to the class by providing some of the things (e.g., looseleaf notebooks, homework, and track meets) whose lack sets the EMR child apart from his siblings and peers in regular classes.

During the development phase of the first primary year of this product, material prepared for the 11 subject areas was tried out to test the efficacy of content and procedures for each subject area. Next, lessons were developed for a 10-month school year. Then the first primary year of the curriculum was tried out in two primary EMR classes (15 students in each) for one year, with two additional EMR classes (15 students in each) using traditional curricula and forming the control group. The two groups were comparable in terms of race, sex, age, IQ, and achievement test scores; both groups contained a few children with problems in speech, vision, and behavior. (The control group had one child with a motor control problem and the experimental group had one child with a hearing problem.)

Pretests and post-tests of achievement and intelligence were administered. On the Metropolitan Achievement Test the experimental group had a mean gain of 20.33 points, as compared with a mean gain of 6.50 points for the control group; on the Stanford-Binet Intelligence Test the experimental group had a mean gain of 11.63 points, as compared with a mean gain of 0.40 point for the control group. (The tests were administered by experienced testers, graduate students in psychology, who were told that the purpose of the testing was to collect normative data.)

Class placement figures for the following year also reflect the greater success of the experimental curriculum: in the experimental group, 7 children went to normal classes full time and 3 part time in September, 1 was scheduled to enter normal classes part time in February, and 1 was in a transitional class that would enable him to move into an educationally handicapped (EH) program the following year, with 18 remaining in the EMR class; in the control group, 2 children were in an EH program and 1 was in a transitional class that would enable him to move into an EH program the following year, thus 27 remained in the EMR class.

It is claimed from the evaluation phase that the theoretical base, content emphasis, and procedures were highly effective. Using the identical approach to that of the first primary year, a preschool year and a second primary year have now been developed. The result is a 3-level program with great continuity, with neither overlapping nor omissions in content, requiring no unusual or expensive equipment, and in a form that any reasonably capable adult can follow without difficulty.

One EMR teacher with a degree in special education and one assistant (this assistant may or may not have experience in instructing children - if she is interested and able to follow instructions she should be able to follow the lessons) are needed in the classroom to work with the curriculum. The material provided includes the manual (it is hoped that this will be inexpensive) and all of the necessary non-perishable material. Books recommended for use are usually already available in the school library; otherwise, they must be purchased.

Pending approval of the copyright by the U. S. Office of Education, the curriculum will be published by Lear, Siegler-Searon, 6 Davis Drive, Belmont, California 94002. They are a publishing company that specializes in material for the handicapped and have about 30 salesmen on the road, mainly in the East and Midwest.

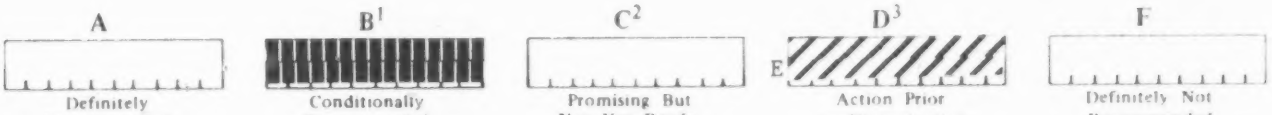
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP-AC*	*Code No.*
12	170	B-896-08-R06

Project Management II: Basic Principles and Techniques of Project Management
C. Peter Cummings, Principal Investigator
Research for Better Schools, Inc.



A	B[1]	C[2]	D[3]	F
Definitely Recommended (Dollar Support)[4]	Conditionally Recommended (Dollar Support)[4]	Promising But Not Yet Ready (No Dollar Support)[4]	Action Prior to Dissemination (Dollar Support)[4]	Definitely Not Recommended (No Dollar Support)[4]

PANEL DISCUSSION

Dissemination should not be contingent upon further evaluation, although the need for independent evaluation should be stressed. The level at which the material is presented should be checked for suitability to the target population. Although field testing thus far involved a small n, significant improvement occurred, at least in terms of the judgment of the learners that they had indeed learned and retained the learning over time. The product will work with administrators, but perhaps not with evaluators.

PANELIST COMMENTS

Improvements in performance of those tasks for which trained seem substantial although not earthshaking.

Goals narrow but useful.

Requires some advance planning.

Would not subsidize anything but an inexpensive accurate mailing piece.

NOTATION

1 - Condition to be satisfied is indicated in Panel Discussion.
2 - Resubmission in 1974 is suggested.
3 - E = Independent Evaluation or Independent Review of Available Data, T = Field Trials, M = More Development, O = Other Action as Specified.
4 - "Dollar Support" refers to Dissemination Dollars.

Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
170

Code No.
B-896-08-R06

Project Management II: Basic Principles and Techniques of Project Management

Principal Investigator: C. Peter Cummings
Research for Better Schools, Inc.
Suite 1700, 1700 Market Street
Philadelphia, Pennsylvania 19103

Basic Principles and Techniques of Project Management is Module 2 of the Educational Project Management Instructional System (EPMIS). It is 537 pages long, takes about 24 hours (including the supplementary case simulation) to complete, and uses 580 slides and 12 tapes. It can be used by either an individual or a group. The case simulation which supplements the instruction is 187 pages long and can be used only by a group. The intended audience is current and potential project managers. This module is designed to teach a project manager to plan, organize, direct, and control a project and to attain the project objectives within the given time, cost, and performance constraints. The developers feel that the use of Modules 1 and 2 is sufficient to train school personnel in managing individual projects. It is also possible to use Module 2 without training the top-level administrators with Module 1. The chapter headings in Module 2 are: an introduction to project management, project definition, work flow, time estimation, resource allocation, cost estimates and budgets, project start-up, developing the project information system, problem identification, problem-solving through management's actions, solution or decision implementation, and project termination. Target audiences other than project managers are identified as: project staff personnel, school administrators, school district central office staff, undergraduate and graduate educators, community agencies' personnel interacting with schools, and supportive staff and agencies having liaison with local schools (such as state departments of education).

The EPMIS instructional materials were developed by Research for Better Schools, the Educational Program Management Center (EPMC) of Ohio State University, and an advisory committee. The developers first did a task analysis of project management and then stated the behavioral objectives of the program. In 1970-71 Modules 1 and 2 were pilot tested with 27 school administrators, 37 project managers and support personnel, and 6 university professors representing 17 different school districts from 10 different states. The objectives of the pilot test were to answer the questions: 1) "Have product specifications been met?" 2) "What improvements in the prototype product development would increase the level of attainment of product objectives?" 3) "What are the content, methodological, and media errors and inadequacies of the instructional materials?" The product was evaluated and revised. Additional testing in 1971-72 used only 6 school districts in 3 states, but

involved 50 school administrators, 100 project managers and support personnel, and 25 university professors. The 2 modules were again evaluated and revised. Modules 1 and 2 are now ready to be disseminated. The developers hope to obtain further feedback from questionnaires that will be included with the instructional materials.

The material is self-instructional. However, RBS feels that some school districts will need help and is planning to train personnel who can provide training and to establish demonstration/training centers. The manual costs about $15; there is no need for one manual per person. The manual for the simulation exercise costs about $5; one manual per person is needed. Cassette tapes and slides cost about $200; a tape recorder, slide projector, and screen are required.

A publisher consultant firm is looking for a publisher for EPMIS. Meanwhile, RBS has listed the product in some educational publications and is hoping to disseminate it locally. No obstacles to implementation are foreseen. Additional funds would help the dissemination effort and the effort to obtain further evaluative feedback from such dissemination.

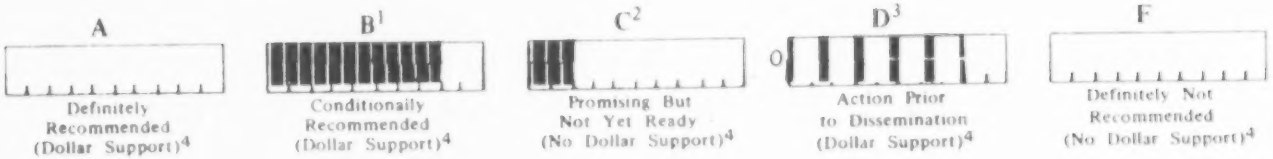
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP-AC*	*Code No*
13	172	B-883-X9-U06

CSE/HLP Test Evaluations: Tests for Higher-Order Cognitive, Affective, and Interpersonal Skills
Ralph Hoepfner, Principal Investigator
Center for the Study of Evaluation



PANEL DISCUSSION

Edit or remove the entries on those research or try-out tests that have no supporting data or are presently unavailable and/or insert a caveat stressing the experimental nature of certain of the tests which remain integrated as a nonremovable part of the product and noting that they should be dealt with with caution. The question of including or excluding each of the instruments should be studied carefully. The product serves an area of need where not much is available.

PANELIST COMMENTS

Good to highlight areas of inadequate instrumentation.

Book needs editorial revision in light of recognized shortcomings such as those listed in caveat.

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Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
172

Code No.
B-883-X9-U06

CSE/HLP Test Evaluations: Tests for Higher-Order Cognitive, Affective, and Interpersonal Skills

Principal Investigator: Ralph Hoepfner
Center for the Study of Evaluation
UCLA Graduate School of Education
Los Angeles, California 90024

The CSE/HLP Test Evaluations is a single volume composed of evaluation ratings of some 2610 scales and subscales considered to test skills in the higher-order cognitive, affective, and interpersonal areas. The evaluations were originally completed for use by the Humanizing Learning Program of Research for Better Schools, Inc., according to a set of taxonomies developed for that program, but they have been published to be 1) of assistance to educators in the development and assessment of innovative goals and programs and 2) of assistance to researchers, psychometricians, and test publishers in identifying areas for which adequate instrumentation does not exist.

Each instrument is categorized into a cell of 1 of the 3 taxonomies and is given a numerical rating and a letter grade (Good, Fair, Poor) on each of the following characteristics: validity, examinee appropriateness (appropriateness for the intended examinee group), normed excellence, teaching feedback, usability, and retest potential, and comments are made on the instrument's ethical propriety. The subcharacteristic ratings are considered to be additive and as such may obscure drawbacks in the instruments. The CSE acronym for this system is VENTURE and the first portion of the book is devoted to a discussion of the components of each rating. For example, the system generally gives highest usability ratings to instruments which may be large-group administered in less than 20 minutes by a single observer without extensive practice. It will give low normed excellence ratings to a subscale if normative data are available only for the whole battery of subscales.

The instruments are arranged by skill area and subskill, alphabetically within subskill. Each skill area is introduced by a description of the taxonomy against which the instruments were matched. The cognitive taxonomy is a grid of skill (e.g., classifying) against content (e.g., verbal-semantic). That of the affective domain is 3-dimensional: affective characteristic against type of measure (e.g., self-report) against type of report (e.g., speculative). The interpersonal taxonomy is 4-dimensional with type of relation (e.g., with peers) mapped against location (e.g., at home) against type of measure against type of report. The instruments are identified by name, form, age range, and the initials of the publisher (or author, in the case of unpublished tests). An index of tests and an index of publishers are included.

CSE claims the test evaluations offer 1) conciseness, 2) the most up-to-date and complete collection, 3) educational relevance, 4) objectivity, and 5) consistency.

The taxonomies of the CSE/HLP Test Evaluations were generated in the following manner: the principal investigator and his assistants collected all the attributes from existing factor analytic studies (e.g., Bruner, Cattell, Guilford, and Piaget) and the developers of the HLP eliminated all factors of little interest to their program. An extensive search was then made for both published and experimental instruments. Before being rated, each instrument was evaluated for suitability for use in the HLP.

Eight raters were employed, ranging in experience from graduate assistants to a Ph.D. in several fields of specialty (e.g., psychological measurement, experimental psychology, measurement and testing, educational research, and design). All raters were initially acquainted with the VENTURE system and did preliminary ratings on a sample of tests to resolve differences in interpretation. Each instrument was rated once. However, the most important complex and subjective judgments and those judgments of which the rater was uncertain were checked by at least one other rater. Raters frequently checked procedure and rationale and each checked consistency in his own ratings. Independently, it has been found that these ratings may be inconsistent with descriptions in Buros's Mental Measurements Yearbooks.

Individual test evaluations are the focus of the product. CSE, however, will have available shortly an analysis of the aggregate of tests on each of the VENTURE evaluative criteria which should give fuller information on cell deficiencies to psychometricians and test publishers.

No study of the resource value to educators has been made but impact studies on 2 similar CSE products (Preschool/Kindergarten Test Evaluations and Elementary School Test Evaluations) indicate that the general idea and format are useful.

CSE/HLP Test Evaluations costs $8.50 and is available from:

Dissemination Office : RBSTE
Center for the Study of Evaluation of Instructional Programs
University of California
405 Hilgard Avenue
Los Angeles, California 90024

Brochures describing the evaluations will be sent out to school superintendents and, if possible, evaluation officers. Complimentary copies will be sent to chief state school officers. If funds are available, a series of 1/2- or full-page advertisements may be run in appropriate journals. In nationwide travels, CSE personnel speak about the product.

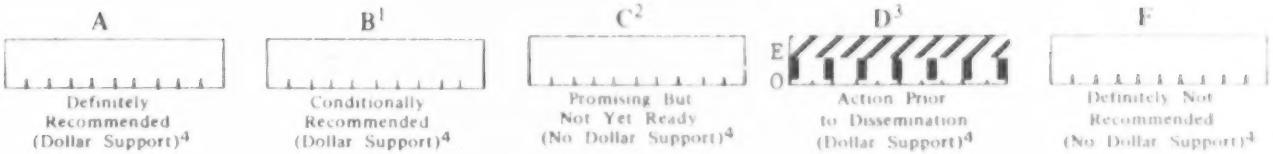
PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP AC*	*Code No.*
14	173	B-892-X8-U07

Evaluation Workshop I: An Orientation
Stephen P. Klein, Principal Investigator
Center for the Study of the Evaluation



PANEL DISCUSSION

The product should be combined with PROP-AC-96 (Book No. 01) - Elementary School Evaluation Kit: Needs Assessment - and dissemination recommendations made in terms of the common portions first and the unique parts separately. NIE should insist on its production at lower cost (although no funds should be allocated for cost reduction); the existence of any residual government copyright should be investigated in this connection. Despite the high cost of the total evaluation model, it is good. Since it is essentially simple material, it would seem desirable to produce it as a simple low-cost package. The gains shown seem weak.

PANELIST COMMENTS

Deserves exposure despite limited size of target.

Major aid to organizational change.

No indication that the workshop staff had any clear notion of what evaluation should do.

Information on this product should be included in any kind of NIE exhibit but no money should be given directly.

I don't see that the workshop is a "product."

NOTATION

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Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
173

Code No.
B-892-X8-U07

Evaluation Workshop I: An Orientation

Principal Investigator: Stephen P. Klein
Center for the Study of Evaluation
UCLA Graduate School of Education
Los Angeles, California 90024

Evaluation Workshop I is designed to orient school and state department of education personnel to the basic principles, procedures, and problems associated with evaluating educational programs and to the kinds of information an evaluation can provide for educational decision-making. The workshop is based on the general evaluation model developed at the Center for the Study of Evaluation of Instructional Programs at UCLA. It takes 2 days to run and is ideally suited for groups of 30 to 45 participants. The workshop materials consist of a leader's manual, a notebook for each participant, and a set of exercises for each team of 3 participants.

Each team plays the role of the evaluator in the simulated evaluation of a tenth-grade biology-ecology course. The basic instructional procedure for each of the workshop's modules involves receiving instruction in one of the 5 phases of the Center's evaluation model (such as needs assessment), practice in solving relevant problems in this area via a team exercise (such as determining the relative priorities among potential program objectives), and feedback and discussion of the correct answers. Instruction is provided via pamphlets, lectures, and audio tapes of conversations. By the end of the workshop, participants have completed exercises involving the selection, collection, analysis, and reporting of evaluation information for decision-making.

The team's exercises and feedback materials are packaged in a rip-off pad so that each team has a copy of the exercises and each participant has a copy of the instructions and feedback materials. Each participant is also given a 3-ring looseleaf notebook containing all the instructional and simulation material. At the conclusion of the workshop, the exercise and feedback material can be added to the notebook to create a 100-page guide to general evaluation principles and procedures; the participant keeps this as a reference tool.

Three versions of the workshop have been field tested; Version 1 at 3 sites between March 1969 and April 1970, Version 2 at 5 sites during the spring and summer of 1970, and Version 3 at 12 sites between October 1970 and August 1971. The field tests indicate that participants significantly increased their knowledge of evaluation, developed a more favorable attitude toward evaluation, and found the workshop materials useful in their jobs. Details are reported

in: Klein, S. P., and Nadeau, M. A., "Developing and Field Testing of Evaluation Workshop I: An Orientation," CSE Report No. 71, October 1971.

Three forms of a 23-item test were constructed and were administered in a counterbalanced design as pretests and post-tests. These tests were used to evaluate Versions 2 and 3; mean change scores were highly significant in both cases. For Version 2, the mean pretest score was 14.70 and the mean post-test score was 16.80, yielding a "t" value of 4.85, which is significant beyond the 0.01 level. For Version 3, the mean pretest score was 14.69 and the mean post-test score was 17.15, with a "t" value of 12.67, significant beyond the 0.001 level.

At the conclusion of each workshop, a questionnaire was administered to the participants so that they could evaluate the workshop and make suggestions for its improvement. Both versions were considered quite valuable by most participants. For example, 88% of the participants indicated that they developed solutions to their evaluation problems at the workshop.

To study the impact of the workshop on participants who had taken Version 2 or 3, a questionnaire was sent to 297 previous participants in May 1971. The results were generally favorable. For example, of the 253 respondens, 72% had used the notebook since the workshop; 67% had discussed or shared materials and/or ideas with colleagues; and 90% indicated that the workshop enhanced their understanding of evaluation problems.

The materials required for the Workshop are: 1) the Leader's Manual which costs $40, 2) participants' notebooks at $18 each, and 3) a reel-to-reel tape recorder.

The Workshop requires about 16 hours from the leader and 16 hours from each participant. Participants work in teams of 3. The ideal number of participants is 30, but groups of 24 to 60 are feasible.

CTB/McGraw Hill, Del Monte Research Park, Monterey, California began publishing and disseminating the Evaluation Workshop in August 1971.

PROP 1973

PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No	*PROF-AC*	*Code No*
48	182	F-372-42-Z$_t$ 01

Pacemaker Games Program
Dorothea M. Ross, Principal Investigator
San Francisco Medical Center

A	B[1]	C[2]	D[3]	F
Definitely Recommended (Dollar Support)[4]	Conditionally Recommended (Dollar Support)[4]	Promising But Not Yet Ready (No Dollar Support)[4]	Action Prior to Dissemination (Dollar Support)[4]	Definitely Not Recommended (No Dollar Support)[4]

PANEL DISCUSSION

The data show good gains with the use of the product.

PANELIST COMMENTS

Target children began playing with others after 5 months of the program.

May be disruptive in certain settings.

NOTATION 1 panelist abstained from voting.

1 - Condition to be satisfied is indicated in Panel Discussion.
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Educational Testing Service, Princeton, New Jersey, February 1973

PROP-AC
182

Code No.
F-372-42-Z$_t$01

Pacemaker Games Program

Principal Investigator: Dorothea M. Ross
312 Concord Drive
Menlo Park, California 94025

The Pacemaker Games Program is a pre-arithmetic readiness program which includes table games and active racing games. It is designed to be used with the educable mentally retarded child (EMR) of primary-grade age (approximately 5-10 years). Through a series of 65 games of gradually increasing difficulty, the EMR child learns to participate in informal games designed so that the manipulation of numbers is an intrinsic part of the activity. He is intended to benefit educationally in a two-fold manner: by acquiring certain number knowledge and by learning how to play games. The program differs from other similar programs in its emphasis. The child is taught general game skills, not numbers. Number knowledge is gained incidentally by playing games for a sustained period of 25 minutes for young children and 35 minutes for older children.

The developer claims the following minimum results (based on research) can be expected from use of the program: 1. Mastery of the ten general game skills (good behavior during game explanation, playing in turn, taking one turn, good behavior between turns, accepting decisions, following rules, being a good loser, accepting the end of the game, handling game materials only as required, and treating game materials with reasonable care); 2. Ability to count by rote to 10 or higher; 3. Ability to enumerate eight or more objects; 4. Ability to use ordinal numberals to five or more; 5. Ability to pair the members of one set of objects with those of another set; 6. Ability to recognize small groups to four or more; 7. Ability to recognize common shapes; 8. Ability to identify colors; 9. Ability to identify coins; 10. Ability to use quantitative vocabulary; and 11. Ability to recognize numbers.

The games are intended to be played with an adult or older competent child in charge. This person is referred to as the game controller and his task is to supervise the game. A game controller should always be present although the amount of supervision required should drop sharply as the program progresses. The game controller routinely uses number terms such as first, second, next, and last, and he thus serves as a model for the children.

Another adult or competent older child is occasionally brought into the game sessions as an adult model. This person's function is to demonstrate general game skills that the players are having difficulty acquiring. For example, if the players consistently exhibit bad losing behavior, an adult model would be brought into one game session, would exhibit bad losing, and be reprimanded and required to behave properly when losing.

The program thus requires one adult (game controller) to supervise the game sessions and a second adult (adult model) only when the players are having trouble with a game skill. In the 9-month experimental test of the program some groups never required an adult model and no group required one more than three times.

Three or four may play a game at one time, but only three if the adult model is utilized. One game set contains enough materials for a class of 30 to participate in different games simultaneously, provided the appropriate amount of adult supervision is available; i.e., one adult for every 4 to 5 children.

The program was introduced in 1969 and about 500 game sets have been sold per year. A total of 1624 game sets have been purchased. Although originally developed for the EMR child, the program is now in use in a number of normal kindergarten and primary slow-learner classes.

The Games Program was validated in a 9-month game training program using an Experimental group and a Control group. The subjects were 40 EMR children who were free of gross motor, sensory, and emotional defects. IQ's on the Stanford-Binet Intelligence Test ranged from 51 to 79. On the basis of Chronological Age, Mental Age, and IQ, the children were matched as closely as possible in pairs. One member of each pair was randomly assigned to the Experimental group and the other to the Control group. The Experimental group spent 100 minutes per week (3 approximately 35-minute sessions) in a 9-month game program, and the Control group spent an equal amount of time in traditional special-class number study covering the same topics.

At the end of the 9-month training period, the two groups were tested with a Number Knowledge test adapted from tests of other researchers. A test-retest reliability was established by administering the Number Knowledge test twice to a group of 10 subjects in the study, selected from the total group to represent the total group. There was a 2-week difference in test dates. The test reliability was 0.98. General game skills were assessed by trained observers. Each subject was assessed for a total of twelve 5-minute periods of play with three different games and in three different threesomes without an adult model. Observer reliability was computed by the percentage agreement method to be 91 per cent.

The Experimental group scored higher than the Control group on the Number Knowledge test. Subscores showed that the Experimental group obtained higher scores on all measures (rote and rational counting, specific quantitative terms, time, money, shape, and color). Minimum results obtained by 18 to 20 members of the Experimental group were ability to a) count by rote to 10, b) enumerate 8 objects, c) use ordinal numbers, d) recognize small groups to four or more, e) pair the members of one set with those of another, f) recognize common shapes, g) identify all U. S. coins, h) identify colors, and i) use quantitative vocabulary. The Experimental group also scored significantly higher than the Control group on a measure of Spontaneous Quantitative Vocabulary, a subscore given by the Number Knowledge test.

In general game skills, the Experimental group made fewer errors on post-experimental measures than did the Control group. This was defined as greater improvement in general game skills for the Experimental group.

Further support for the Games program has come from parents and teachers of the EMR children completing the program. Letters mention marked increases in the use of quantitative terms in both the classroom and free play. Still further evidence of success is that the time for administration of the Number Knowledge test decreased from three or more sessions in the pretesting to one post-test session for 14 Experimental subjects while only 4 Control subjects were able to complete the test in one post-test session. By the end of the fifth month of the program, 14 subjects in the Experimental group were playing games routinely with their neighborhood peers or siblings.

Parents or teachers may administer the program as long as the manual is followed closely. Games are intended to have an adult (or older competent child) controller. In an EMR special class, the whole class could play the games simultaneously if the teacher brought in one or two older normal children to serve as game controllers. The program requires one game controller for every four or five children. Sixth graders, junior and senior high school students, and a variety of untrained adult volunteers have administered the program successfully.

Basic material is the Pacemaker Games Program which contains all materials for board games. Total cost is $36.00. Action games require some materials, usually readily available; e.g., U. S. coins and dollar bills, file cards, rulers, cardboard. The materials in the Games Program have been tested for durability and are claimed by the developer to be indestructible. Materials are readily available in unlimited supply from:

Fearon Publishers
6 Davis Drive
Belmont, California 94002

In the event of loss of materials, Fearon Publishers will replace some items free and require a minimum charge for others.

The program calls for a minimum of three 35-minute game sessions per week. If this is done in a special education class there is no scheduling problem. In a regular class where the EMR child is mixed with normal children, special scheduling for the teachers and children would be necessary.

At present Fearon Publishers distributes a brochure advertising the Pacemaker Games Program and has about 30 salesmen on the road, mostly in the East and Midwest. The developer has plans to revise the teacher's manual to include a sample lesson, complete with what to say to the children and how to say it. The sample lesson will be used in promotion of the product. The publisher has plans to expand the existing dissemination efforts to include the West.

PROP 1973

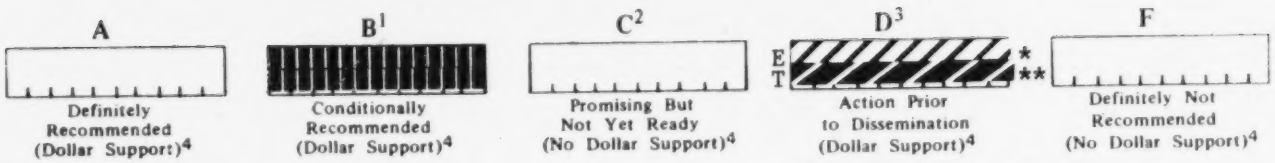
PANEL REVIEW OF PRODUCTS
for the
National Institute of Education

DISSEMINATION RECOMMENDATION

Book No.	*PROP–AC*	*Code No.*
86	187	D-692-69-Z$_{J}$02

Geography Curriculum Project
Marion J. Rice, Principal Investigator
University of Georgia

Earth: Man's Home



*Earth: Man's Home
**Other components

PANEL DISCUSSION

Limited funds should be allocated for field trials. Money should be allocated for dissemination, but concurrently the considerable data already available should be reviewed rigorously by an independent reviewer. The concept-based approach to curriculum has not had a history of marked success.

PANELIST COMMENTS

A worthwhile change in approach to the study of geography.

This program is to supplement, not replace, yet substantial time, presumably taken from the existing schedule, is required. It must replace something.

Sample geographically limited.

Too costly for an unknown competitive gain.

NOTATION

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3 - E = Independent Evaluation or Independent Review of Available Data, T = Field Trials, M = More Development, O = Other Action as Specified.
4 - "Dollar Support" refers to Dissemination Dollars.

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Geography Curriculum Project

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The Geography Curriculum Project offers the teacher of elementary social studies structured curriculum materials in geography. These units are typically organized to reflect selected major concepts. Organization of materials and teaching strategy involve a two-fold emphasis on concept acquisition and concept use, based on the premise that any field of knowledge, such as geography, consists of a system of concepts, or word labels, which are used to express ideas and describe relationships and that an understanding of geography begins with an understanding of the concept system. The units are intended to supplement an existing social studies program, not to replace it.

Earth: Man's Home, a beginning geography unit designed to develop the geographic concept of "habitat," is for Grade 1 and can also be used at the kindergarten level. The teacher's manual contains geography background information, a section on unit development, daily topic lesson plans with exercises and a suggested lesson procedure, and the unit test, which consists of 30 pictorial, three-option items. There is also a pupil workbook. The lessons vary in length from 15 to 25 minutes and involve 30-35 teacher days.

Place and Environment is a Grade 1 Geography unit. It includes a pupil text, and the pupil workbook, the teacher manual, and pictorial test. The primary objective of this unit is to develop the concepts labeled place and environment. There are 12 lesson plans; the unit involves 20 teaching days. A third primary-level unit, Resource and Production, a primary unit in cultural Geography, includes a teacher manual, a pupil text and workbook, and a test. This unit is based upon two key geographic concepts, resource and production. The unit can be completed in 20-25 days, using 20 lesson plans.

The three primary-level units are designed mainly to be used flexibly as parts of an already existing social studies program. Those teachers who wish to, however, can use the three units together to form a one-semester, primary-grade course on Geography.

Comparative Rural Landscapes, a five-week unit, with 20 daily learning activities, was developed for use in upper elementary grades. This unit is organized differently than other units in the series in that it attempts to apply David P. Ausubel's model of verbal reception learning using inclusive theoretical advance organizers to a unit in elementary social studies in order to 1) test the hypothesis of the advance organizer as a facilitator of learning and 2) to see if the advance organizer increases the cognitive achievement of disadvantaged elementary students. In this unit the advance organizer consists of an inclusive, conceptual rural landscape model. In Population Growth in the United States and Mexico, the concept of population dynamics is applied in a systematic unit comparing the growth of population in the United States and Mexico. This unit is designed to provide students in the middle grades with a background in and understanding of the components of population change. In addition, the unit is designed to improve the student's skill in using maps, charts, and graphs.

An intermediate-level unit, The Growth of the Black Population of the United States, is in its first edition. Two additional intermediate-level units are in the process of development and will be ready next year, an urban geography unit in the self-instructional mastery mode (five alternate forms of treatment of the material have been developed) and a unit on transportation geography.

The Project has also developed A Bibliography for Geographic Education, a compilation of articles, books, and pamphlets published since 1950.

The Project is claimed to differ from most primary curriculum developments in three ways: 1) in providing information and experience identifiable with a specific dicipline, geography; 2) in being based on a single concept; and 3) in being global in scope, rather than limited to the immediate environment. The local environment serves as the background against which information from distant places is viewed.

The Geography Curricular Project has been testing each unit for effectiveness as it is developed.

Earth: Man's Home was pilot-tested in Spring 1968 with 83 kindergarten children in 6 classes in two Georgia school districts. Pupil and teacher feedback, as well as direct observation, showed a high level of motivation and interest, notwithstanding the didactic nature of the materials. The revised unit was subsequently field-tested in Georgia kindergarten classes. Evaluation of a conceptual beginning geography unit, Earth: Man's Home, involved 14 teachers and 268 pupils in 17 classes in four Georgia counties. Unit appropriateness was evaluated on the basis of its usability by pupils, as indicated by measurable learning gains, and by teachers. The evaluation of the unit was based upon 1) the reliability and other characteristics of the unit test; 2) the effect of bias associated with pupil sex, race, socioeconomic status, and pretesting on geography achievement; 3) the effect of bias associated with teacher geography background, prior experience with the unit, and teacher perception of the appropriateness of the unit on geography achievement; 4) geography gains as indicated by pretest-post-test differences. The evaluation indicated that pupil sex was a nonsignificant factor, pretesting was a nonsignificant factor, and race and socioeconomic status were highly significant factors with regard to final and adjusted achievement but nonsignificant factors with regard to learning

gains. Whites and nonwhites of low and high socioeconomic status made similar gains. Teacher background in geography was nonsignificant, while experience in teaching the unit was a significant factor for all four measures. Perception of the overall and grade-level appropriateness of the unit were significant factors. The analysis of pretest-post-test differences on geography learning gains indicated that boys and girls, white and nonwhite, of low and high socioeconomic status, regardless of the geography background, experience teaching the unit, or perception of unit appropriateness of their teacher, made significant gains.

Comparative Rural Landscapes was pilot tested with intact classes in a Georgia school district, controlling for differences in teachers and content identity between experimental and control groups. This study attempted to ascertain the comparative effects of the use and nonuse of a conceptual model presented as an inclusive advance organizer with supplementary narrative daily organizers on the geography achievement of disadvantaged rural black fifth and sixth grade students in central Georgia' s lower Piedmont. The study tested the proposition that carefully structured reception learning using inclusive advance organizers facilitates learning among the disadvantaged.

An evaluation of the intermediate grade self-instructional unit in population geography organized according to a method of presentation described as the Forced Inferential Response Mode (FIRM), as compared with a conventional narrative mode supplemented with graphics, has been carried out. The content of the two treatments was identical and both were designed for use on a self-instructional basis. The study also attempted to evaluate the comparative effectiveness of graphics as the primary source of population information and as a visual supplement to the narrative text. All of the classes in the field trials were from three schools in Clarke County, a rapidly growing area that is urban in character. The findings of the study supported the hypothesis that there was no significant difference in performance between the treatment groups on a researcher-constructed criterion post-test or in gains on standardized tests of skill in reading maps or graphs. FIRM was concluded to embody the specific characteristics of the stimulus-response (S - R) reinforcement model and may be considered an alternate application to curriculum of the S - R reinforcement model. The majority of students in both treatment groups reported that they had enjoyed working with the unit materials and that they thought the content area was interesting and important.

In all of the testing associated with the Project, whether at the pilot-, the field-, or the final-evaluation stage, the Project has used intact classes in Georgia public schools. Thus, in each case, 20-50% of the students have been below grade level in reading and disadvantaged.

There are no special personnel requirements. Curriculum materials are available from the Geography Curriculum Project. A Classroom Set consists of one copy of the teacher materials; and 40 sets of the pupil materials.

Costs:	Earth: Man's Home	$20.00
	Place and Environment	35.00
	Resource and Production	35.00
	Rural Landscapes	40.00
	A Bibliography for Geographic Education (optional)	2.00
	Population Growth in the United States and Mexico	(no cost figures available)

The materials are designed for class units, although they could be used for selected individuals, for a whole department, a school, or a district. There are no special implications for scheduling or classroom space.

A brochure describing the materials has been published by the Project staff and they respond to mail inquiries. Sales have thus far been very limited.